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textile bulletin

DECEMBER • 1961

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Weaving Problems?

SEND FOR A P&F TEXTILE SERVICE MAN!

The know-how of our textile experts goes far beyond the proper use of P&F starch products, and so do their suggestions. Each man on our technical service staff brought to his job outstanding technical skill and problem-solving ability—the basis of selection. Further experience as a Penick & Ford representative broadened and deepened his knowledge in the textile field. Behind him are the personnel and facilities of P&F's advanced research laboratory.

If you're interested in improving your operations—and who isn't—don't overlook this opportunity to get a fresh slant from a "pro." No strings attached.

Penick & Ford

PENICK & FORD, LTD.

INCORPORATED

1531 Marietta Blvd., Atlanta, Ga.

The P&F Textile Service Man tests yarns and fabrics for added weights, tensile and other properties

Checks out your warp sizing, finishing and glazing solutions under actual production conditions

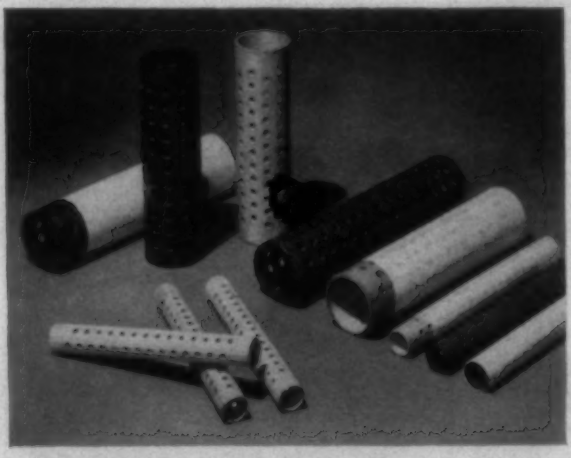
Studies equipment and methods . . . uses his wide experience to help you attain top performance

More than 500 varieties of starches and starch derivatives in these families: Penford Gums • Pensize Gums • Penford Finishing Gums • Essex Gums • Clearsol Gums • Douglas Pearl Starches • Douglas Modified Starches • Douglas Dextrines • Douglas Oxidized Starches

Sonoco Dytex® Tubes for package dyeing and bleaching...

are you missing a good thing?

Economical Sonoco Dytex Tubes are made to save you money. When used with Plastavon Sleeves, they provide the perfect one-time combination for package dyeing and bleaching. They have proven their value throughout the years.



Plastavon Sleeves can be purchased separately or attached to the tubes. Pre-cut filter paper sheets and sleeves are also available in various sizes.

The Plastavon Sleeve permits even dye distribution, better "flow" control, and filters out objectionable or discoloring matter. The sleeve also aids in the drying process.

Sonoco Dytex Tubes are available in three grades — "C," "B" and "L" which designate the type and degree of impregnation. The Dytex "L" was designed for those who prefer a light, natural-colored tube. Standard sizes are $\frac{5}{8}$" and $1\frac{5}{8}$" I.D., 6" to $6\frac{15}{16}$" long. Special sizes made to customer order. Surfaces can be smooth or embossed.

For visible identification, solid colored tubes may be used. Tubes with colored end rings may also be ordered in black, red, orange, green, blue, yellow or brown.

Continuous product development is an advantage when you buy from Sonoco. *Only Sonoco,* in its field, provides the research and integrated manufacturing facilities required to better serve the textile industry. *You can profit from Sonoco's more than 60 years' experience!*

SONOCO

Products for Textiles

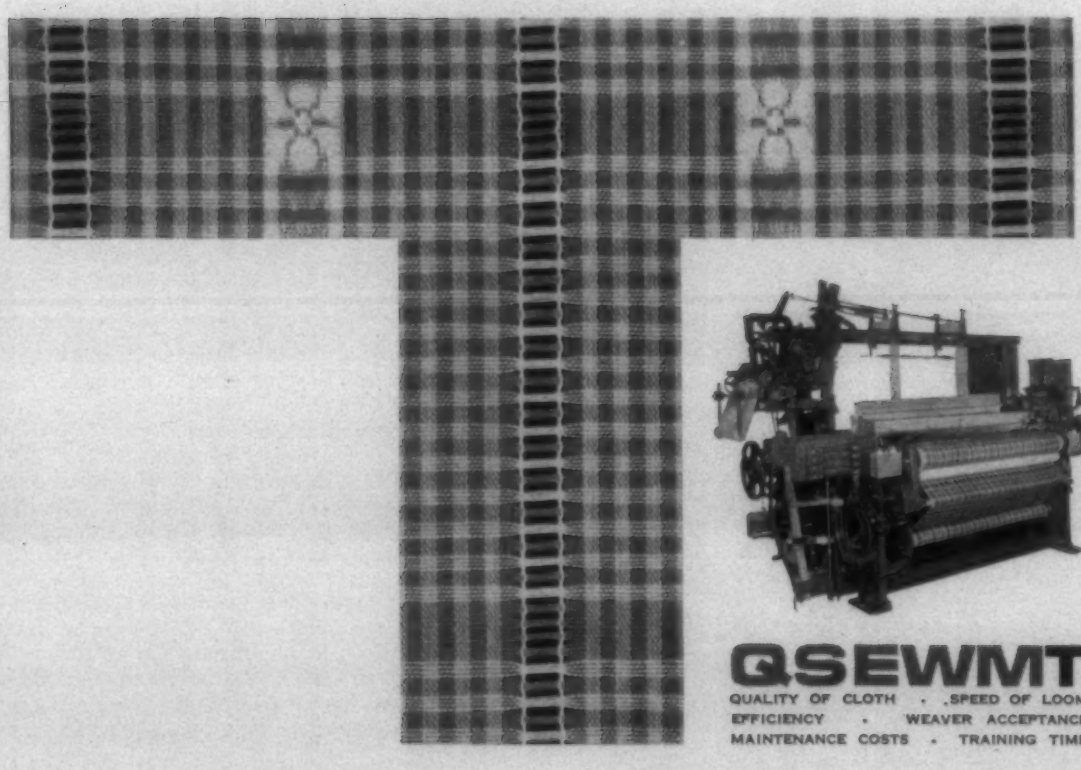
3135

SONOCO PRODUCTS COMPANY, HARTSVILLE, SOUTH CAROLINA • Mystic, Conn. • Akron, Ind. • Ravenna, Ohio • Lowell, Mass. • Holyoke, Mass. • Phillipsburg, N. J. Longview, Texas • Philadelphia, Pa. • La Puente, Calif. • Fremont, Calif. • Atlanta, Ga. • Richmond, Va. • **MEXICO:** Mexico, D. F. • **CANADA:** Brantford, Ont. • Granby, Quebec

TRAINING TIME for C&K's C-7 Loom is measurably shortened by the substitution of mechanical advantages for weavers' skills. Improvements engineered into the loom, such as electric controls, automatically do much of the thinking for the operator, and a sense of timing is not as essential.

Reduced skill requirements not only release trainees to work sooner but also enable more women to become weavers. Even inexperienced weavers can operate the loom safely at high speeds without difficulty. The resultant benefits are quicker proficiency and an increase in *average* workers' productivity.

The C-7 Loom is designed to produce more first quality cloth at higher efficiency and with less maintenance and labor costs. Crompton & Knowles has prepared a folder exploring each of the elements in this series. Send for it to see why the loom line that weaves the widest variety of fabrics ever—fancy cottons, synthetics, terry towels, ginghams, and dress goods—has big *advantages for your mill.*



QSEWMT

QUALITY OF CLOTH · SPEED OF LOOM
EFFICIENCY · WEAVER ACCEPTANCE
MAINTENANCE COSTS · TRAINING TIME

CROMPTON & KNOWLES CORPORATION

WORCESTER, MASSACHUSETTS

C&K

WORLD LEADERSHIP IN AUTOMATIC BOX LOOMS–RESEARCH–ENGINEERING–MANUFACTURE

CHARLOTTE, N. C. / ALLENTOWN, PA. / CROMPTON & KNOWLES JACQUARD & SUPPLY CO. PAWTUCKET, R.I. / CROMPTON & KNOWLES OF CANADA, LTD., MONTREAL, QUEBEC

ROBERTS ARROW SPINNING.. AN INVESTMENT FOR PROFIT

Profit is the ultimate motive behind the purchase of new spinning or any other capital equipment. And profit essentially depends upon the spread between selling price and manufacturing costs.

In as keenly a competitive industry as textiles, profits are generally determined not so much by high prices but more by high quality coupled with low costs so that products of superior saleability, or value, can be offered.

In yarn spinning, low costs with high quality depend mainly on Versatility, Productivity, and Dependability.

The answer: Roberts Arrow Spinning ... An Investment for Profit.

CUTS COSTS AND RAISES QUALITY 10 WAYS

➨ **INCREASED SPEEDS!** 20% to 50% higher, even up to 15,000 r.p.m. spindle speed, achieved by dynamic balancing of all components, plus maximum use of ball bearings.

➨ **UNMATCHED VERSATILITY!** Changes in fiber, yarn number, draft, twist and bobbin build are quickly accomplished. Coarse or fine yarns from 2s to 120s count. Choice of drafting systems: FC for short or long staple cotton plus staple synthetics to 2"; GS for synthetic fibers from 1½" to 3" or worsteds to 6½"; GW for all synthetic fibers, worsteds or blends up to 8" length.

➨ **HIGH DRAFTS!** A broad range of drafts from 10 to 60 is successfully handled on new Arrow Spinning, eliminating roving processes, improving fiber blending, increasing fiber control and upgrading quality.

➨ **HIGHEST YARN QUALITY!** New Arrow Spinning consistently spins stronger, more even yarns. Superior yarn quality with consistency from bobbin to bobbin is assured by simple, gadget-free drafting systems which provide effective fiber control and uniform weighting on all spindles.

➨ **REDUCED CLEANING, MAINTENANCE!** Elegantly functional, new Arrow Spinning has been designed and engineered for cleaner, trouble-free operation. Simplification of components, fewer parts and streamlined design provides reduced cleaning, more quickly done.

➨ **FULLY BALL BEARING EQUIPPED!** in all moving, turning, rotating and oscillating parts for smooth, dependable performance with substantially lowered electric power consumption. Lubrication requirements are eliminated or minimized.

➨ **SPACE SAVING WIDTH!** Only Arrow Spinning is available in both 25-inch and 36-inch widths. The 25-inch space-saving frame permits installation of five machines in the space formerly occupied by four, increasing spindleage and production by 25% in the same mill area.

➨ **BIGGER, HEAVIER PACKAGES!** Arrow Spinning puts more yarn on the bobbin, tighter wound due to better yarn tension through its frame geometry. Larger rings, longer bobbin lengths and improved bobbin build increase package size and weight, resulting in longer doff cycles plus substantial savings in winding with less knots.

➨ **RUGGED CONSTRUCTION!** and close precision of manufacture and assembly assure quality and long life of Arrow Spinning. Refined and streamlined, free of gadgetry and frills, and engineered for peak performance, new Arrow Spinning features many technological improvements contributing to better, less costly spinning.

➨ **ATTRACTIVE LOW PRICE!** The superior operational economy and productivity of new Arrow Spinning, and its new low investment cost, provide for a quick return on investment.

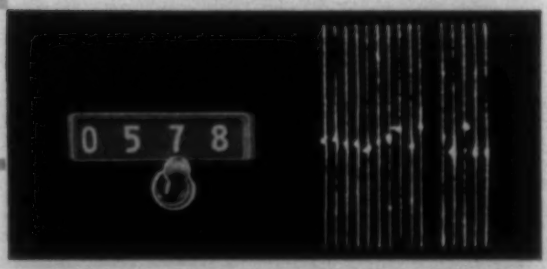
Installation of Arrow Spinning Frames,
Butte Mills Division, Jonathan Logan, Inc.

ROBERTS COMPANY
SANFORD, NORTH CAROLINA

USTER IMPERFECTION INDICATOR IPI COUNTS

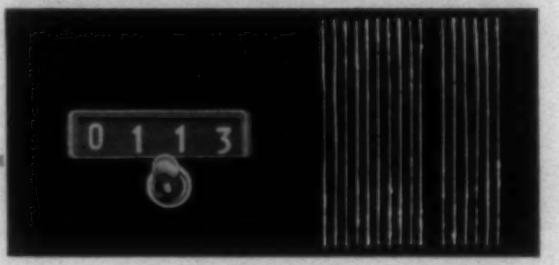
where it counts most– in yarn quality!

COUNTS NEPS



COUNTS THICK PLACES

COUNTS THIN PLACES



The Uster ImPerfection Indicator introduces an entirely new concept in yarn defect analysis. It counts neps, thick and thin places (chief causes of seconds in knitted or woven goods) in one operation with far greater accuracy than the human eye. Exact numbers of imperfections are tabulated and recorded on visual counters simultaneously with other tests being run. No additional personnel or testing time is required.

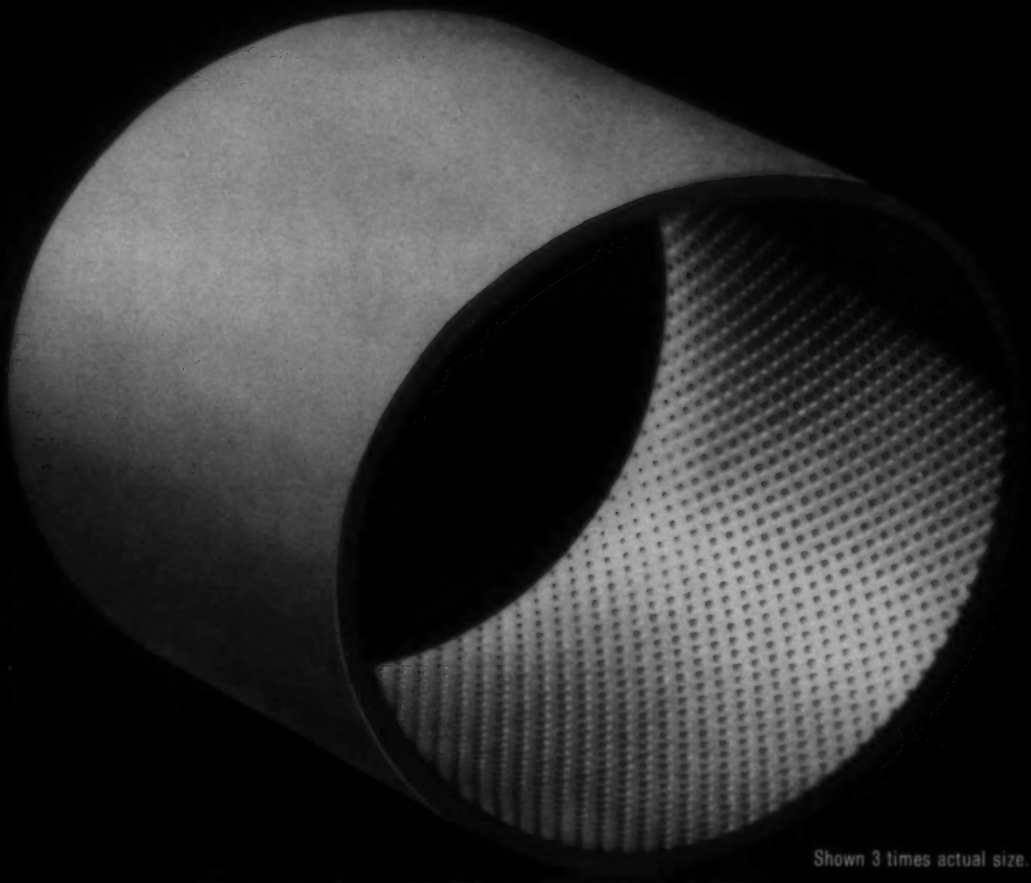
Loom stoppage can be more accurately predicted because IPI will show the number and seriousness of thick and thin spots in yarn according to preset sensitivity controls. It also automatically compensates for short and long term count variations in yarn, thereby indicating the seriousness of the defect in relation to yarn size.

For your convenience, Uster will make available world wide standards for use with this instrument.

USTER USTER CORPORATION, CHARLOTTE 8, NORTH CAROLINA

Canadian Sales Offices:
Hugh Williams & Co., 27 Wellington St. East, Toronto 1, Ontario

Now every Dayco apron is better 5 ways!



Shown 3 times actual size.

NEW: DAYCO PATENTED EMBOSSED APRON

1. Freedom from stress greatly reduces checking, cracking, and other wear.
2. 50% less drag, with related reduction in horsepower.
3. Self-cleaning in operation.
4. Perfect tracking, as a result of embossed "tread."
5. Helps keep quality standards high.

New embossed inner surface makes Dayco

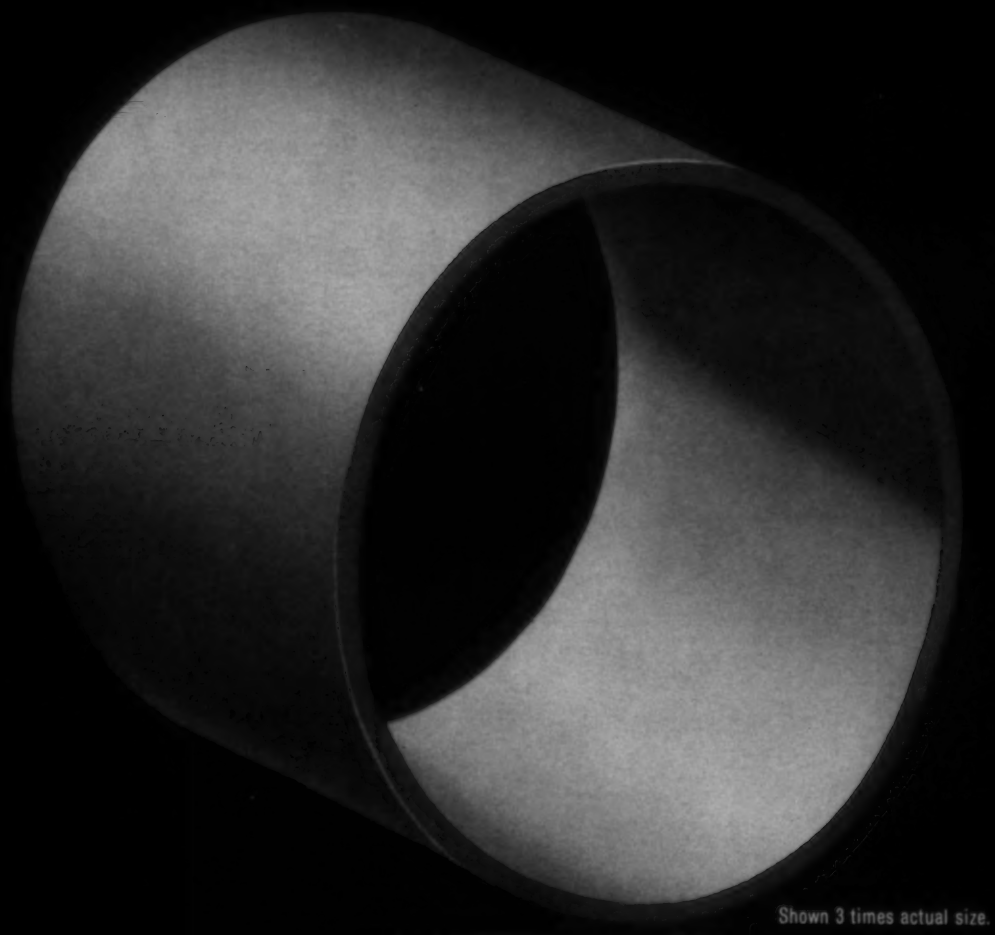
Now every apron Dayco makes is designed with a new superior embossed inner surface—for longer apron life and outstanding performance.

For many years, Dayco compounds have been steadily improved. At the same time, Dayco engineers have been concerned with reduction of stress on aprons in use. Now an entirely new embossed inner surface, exclusive with Dayco, provides that reduction. Here's the story, based on controlled tests and actual mill use.

Dayco embossed aprons have less material in contact with the nosebar, which means less compression and distortion of the apron as it turns; less checking and cracking.

Smoother tracking, with better grip and less slip, is a second plus this patented inner surface provides. There's a seeable improvement in drafting action, and evenness of yarn, too.

Each Dayco apron cleans as it runs, thanks to that special inner surface. Down-time for cleaning idler rolls and nosebars is practically eliminated. And, with only 50% of apron surface in contact with driving parts, far less horsepower is required to operate Dayco-equipped frames.



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OLD: CONVENTIONAL APRON

1. Stress at nosebar leads to early wear and deterioration.
2. Full measure of drive power required.
3. Regular cleaning essential.
4. Occasional slipping and chattering.
5. Can hold down quality of yarn produced.

the most durable, efficient apron you can buy

Dayco aprons — with the same fibers on the same frames — outperform other aprons by a margin that shows up plainly in profit and production records.

Ask your Dayco representative for help in putting this outstanding new apron to work for you. For further information, write or phone Dayco Textile Products, 401 S. C. National Bank Bldg., Greenville, S. C. Overseas Plant: The Dayton Rubber Co., Ltd., Dundee, Scotland.

Other Dayco products for the textile industry—all produced with the same careful attention to satisfying your needs—include: cots, roll coverings, slasher rolls, loop pickers, drop box pickers, lug, hold-up and harness straps, bumpers and sweepsticks.

Dayco
TEXTILE PRODUCTS
Division of Dayco Corporation

Dayco

a more profitable way from THIS to THIS

WHITIN model N spinning

Nearly 500,000 spindles of Model N Spinning for cotton and blends have been sold in just two years. Such rapid success can mean only one thing — that mill men see in it just what they need — a functional, high-value, low-cost frame that's lean, trim and versatile. Compact in design and price, it will repay you with years of outstanding performance and efficient production.

If out-dated, non-competitive spinning is whittling down your profits, now's the time to make your move. Call your Whitin representative today.

WHITIN

WHITIN machine works

WHITINSVILLE • MASSACHUSETTS

CHARLOTTE, N. C. • GREENSBORO, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

The best way to better yarns

be a winner

don't take chances in VAT PACKAGE DYEING

PUTNAM'S PRIMASOL FP/BASOGAL P Method is winning the race due to:

Complete levelness throughout entire package • No cross overs • Excellent crock fastness even in dark shades • Very good color yield with superior brightness • Shorter dyeing cycles • Easier rewinding without softeners • No pre-scouring necessary

BASF knows how

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5800 Andover Ave.
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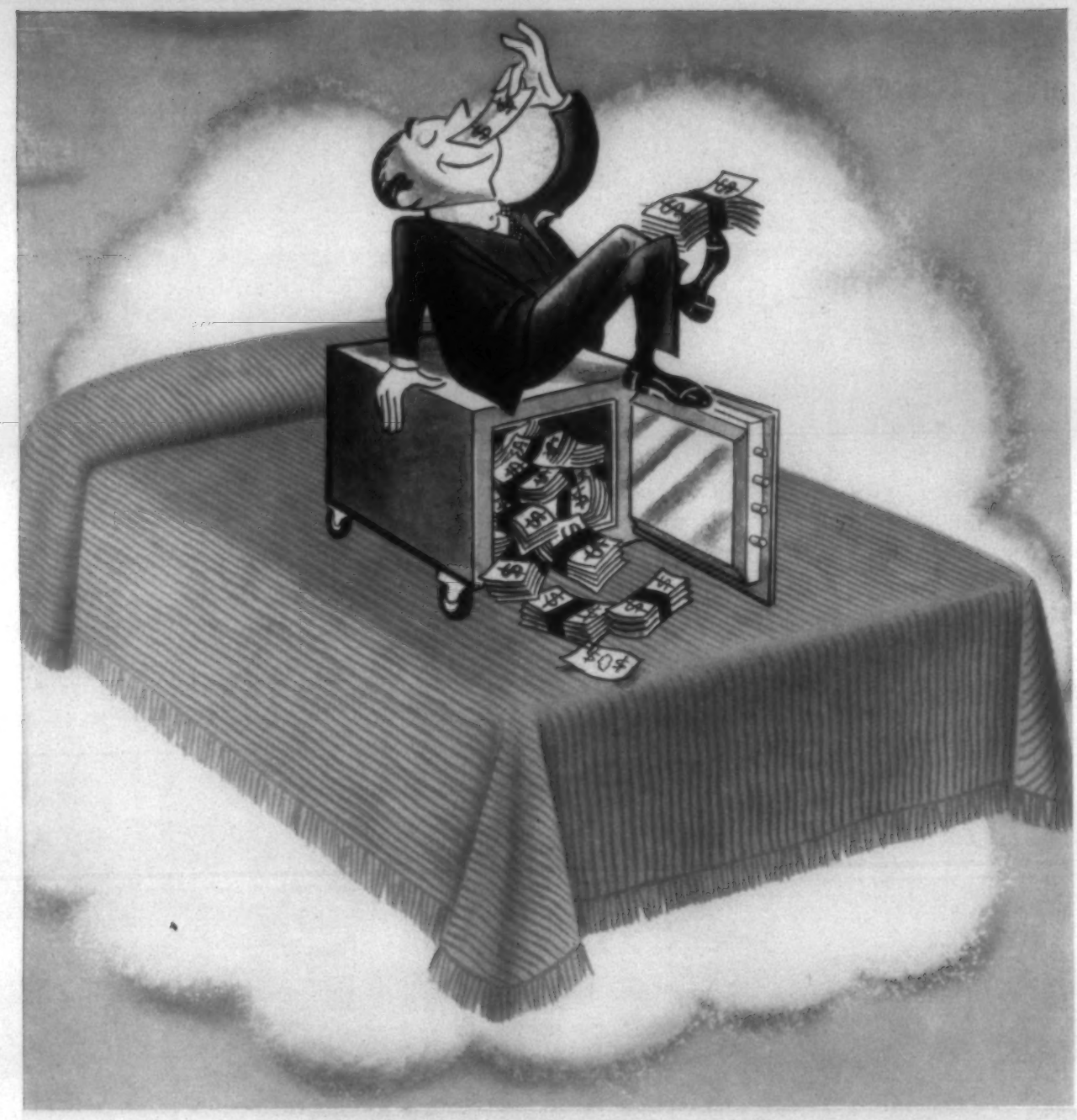
FOR YOUR MOST DIFFICULT WORK, DON'T FORGET PUTNAM'S

PALANTHRENE YELLOW 4GF
PALANTHRENE ORANGE RR
PALANTHRENE RED RK
PALANTHRENE BLUES, CLB, CLG, CLF, CLR
PALANTHRENE OLIVE GRL
PALANTHRENE GREY CL

PUTNAM CHEMICAL CORPORATION
CHARLOTTE, N. C. BEACON, N. Y.

MANUFACTURERS AND DISTRIBUTORS OF DYESTUFFS, PIGMENTS, AUXILIARIES
INCLUDING PRODUCTS DEVELOPED BY *Badische Anilin- & Soda-Fabrik A.G.*
LUDWIGSHAFEN A. RHEIN, WEST GERMANY



"Mine. All mine."

Comfortable, isn't it Charley, to sit on a pile of profits! And, you've got company. Bedspread manufacturers know ENKA Skybloom extra high-crimp rayon fiber turns out yarns that make the finest tufted spreads on the market... assuring MILL EFFICIENCY · UNIFORM QUALITY · STYLING VERSATILITY MORE BLOOM · LASTING RESILIENCY

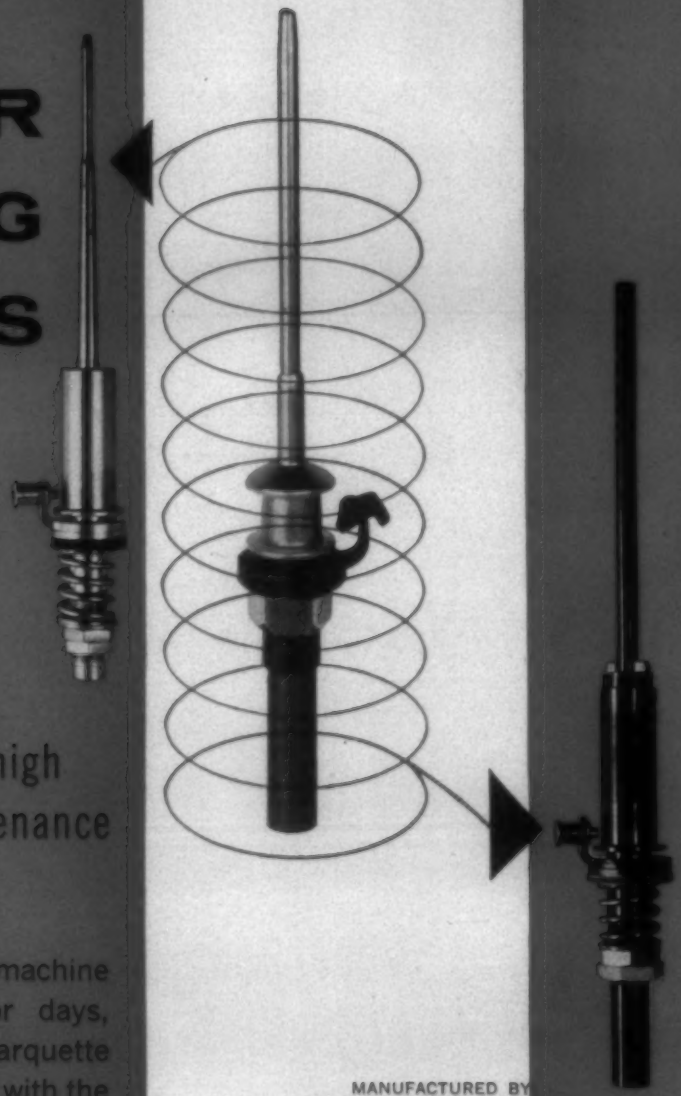
ENKA Skybloom® RAYON

LESS FALLOUT · NO WASTE · WHITER GOODS · TRUER DYEING ...plus the solid benefits of full color national advertising in such magazines as American Home and Sunset. You will be seeing Skybloom in a variety of end-products. Skybloom, the promotable fiber! Contact Enka Merchandising, 350 Fifth Ave., New York 1, New York.

AMERICAN ENKA CORPORATION, ENKA, N. C. • PRODUCER OF NYLON • RAYON • YARNS • FIBERS
NEW YORK OFFICE: 350 FIFTH AVE., NEW YORK 1, N. Y. • DISTRICT SALES OFFICES: GREENSBORO • PROVIDENCE • ENKA

marquette

ROLLER BEARING SPINDLES are *fast*



Built for continuous high speed and low maintenance

They spin as fast as your machine requires and they spin for days, months and years. Only Marquette makes roller bearing spindles with the exclusive full-floating footstep bearings that make light work of heavy packages at tremendous speeds, increase your production, upgrade your yarn in quality and reduce ends down. Whether cotton, synthetics, wool or worsted—there's a Marquette spindle for spinning or twisting every kind of yarn, for all package sizes.

MANUFACTURED BY
MARQUETTE DIVISION
CURTISS WRIGHT
CORPORATION
CLEVELAND 13, OHIO

DISTRIBUTED EXCLUSIVELY BY:

Utex
INCORPORATED

A SUBSIDIARY OF U. S. TEXTILE MACHINE COMPANY
SCRANTON, PA. — GREENVILLE, S. C.

RETARDING LOOM OBSOLESCENCE

A steady flow of new Improved Repair Parts keeps mill weaving machinery up-to-date

Draper Corporation is continually improving parts and mechanisms for its looms. Year after year, scarcely a week passes without the introduction of another Improved Repair Part for one or more Draper loom models. These are all designed by Draper research and engineering staffs to keep present mill machinery competitive with our newest looms.

Each Draper Improved Repair Part is made for application to as many mill loom conditions as possible. Although they may be copied by others, the original design of these parts can be successfully accomplished only by the loom builder, for he alone has complete information on the various loom constructions in the field.

These Improved Repair Parts help to keep older looms operating profitably. They postpone the day when a mill must consider its looms to be obsolete.

What is an Improved Repair Part? An Improved Repair Part is one so developed by Draper engineers that is can be applied, as far as possible, to all existing Draper looms in the mills. It is designed to give one or more of the following benefits:

1. Better service throughout a longer life than the original loom part.
2. Easier installation with less down time.
3. Better loom operation.
4. Production of higher quality fabrics.

How Improved Repair Parts are developed. Ideas for Improved Repair Parts originate from Draper engineering and manufacturing de-

partments, Construction Committee members, Draper sales and service men, recommendations of material suppliers and, frequently, from suggestions by mill superintendents, overseers, and loom fixers.

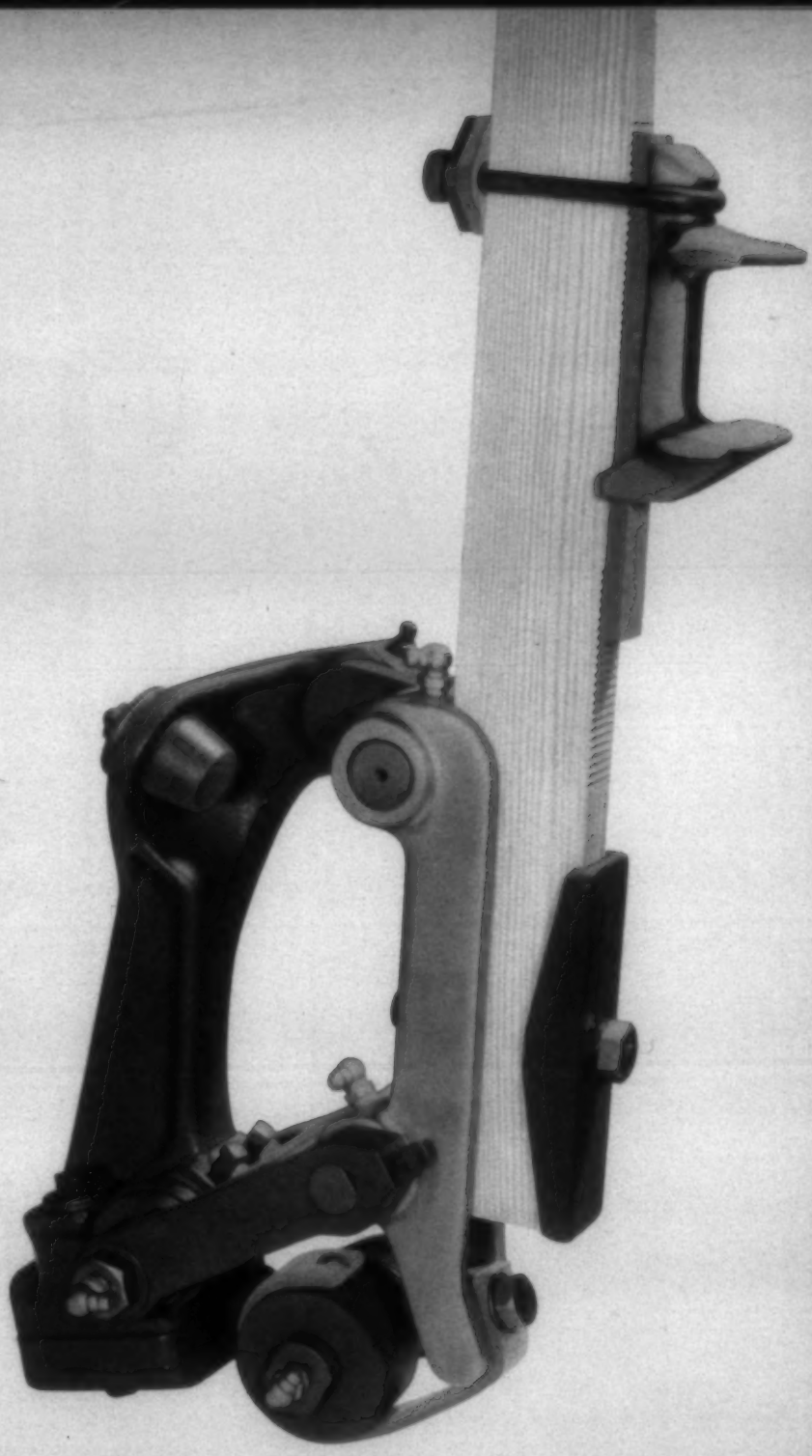
Usually extensive "mill trials" are conducted, whereby a new part proves itself in actual weaveroom operation, before it is offered for sale.

Although Improved Repair Parts are designed to replace older parts, mills often use both old parts and new Improved Repair Parts simply because supply room bins and records are set up for ordering both. Generally the older number could be eliminated to advantage.

Why Draper Parts are best for Draper looms. Uniformity of parts is necessary for successful standardization in setting loom mechanisms to gauge. Worn or poorly fitting parts just cannot be set to gauge. Competitive mills know that only with the best loom parts available can they get uniform and accurate settings, that *only with gauged settings can they get maximum production, lowest weaving costs and highest cloth quality.* These mills are first putting their looms in top condition and then running them with correct and standardized settings.

In such a planned program, differences in initial cost of repair parts are often found to be of least importance. More and more mills are using Draper parts *exclusively* to maintain their weaving machinery at highest competitive standards. Draper parts are made from the same metal mixes as original parts furnished with the loom. They are finished to master overall gauge dimensions available only to the loom manufacturer. Draper Improved Repair Parts fit Draper looms and each other better; as a result, they are dependable and last longer. Correct engineering design, selection of proper materials and use of economical manufacturing methods are determined for each Draper part by a competent knowledge of their effect upon *total loom operation.*

You can find out more about Improved Repair Parts from your Draper Improved Repair Parts Catalog, from Draper sales and service representatives, or by writing to Draper Corporation.



Draper Link Type Parallel . . . provides a positive fully constrained action, contributing to smoother shuttle flight, improved boxing, simplified adjustment and longer life of Shuttle Box and Pick Motion parts.

DRAPER CORPORATION

HOPEDALE, MASS. • ATLANTA, GA. • GREENSBORO, N. C. • SPARTANBURG, S. C.

the weaver's friend . . .

VICTOR MILL STARCH

Since 1898 experienced mill men have relied on the uniformity of Victor Mill Starch. They know that year after year Victor can be depended upon for better penetration, stronger warps, greater smoothness.

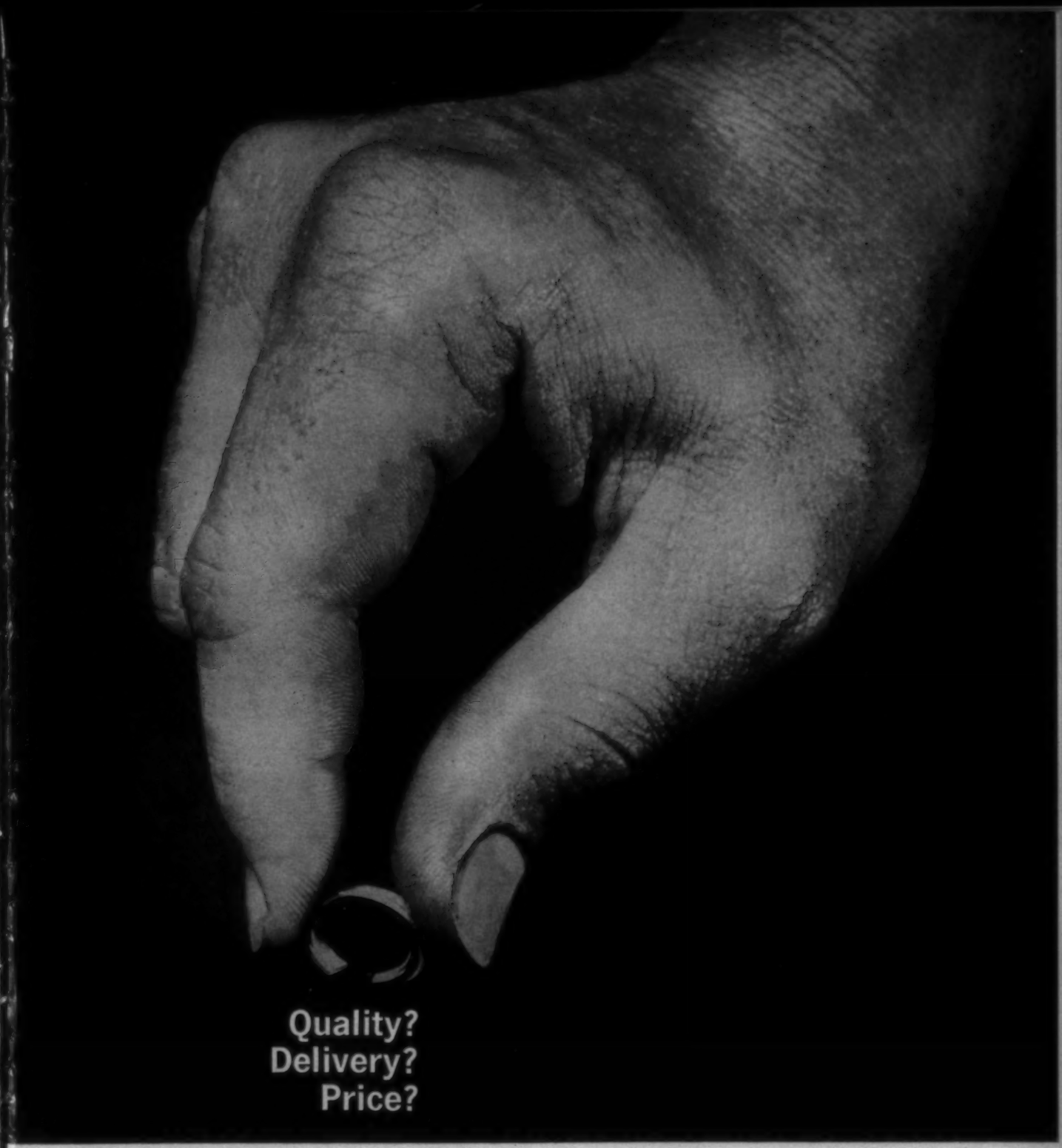
They have also learned to rely on Keever technicians. When mill problems come up, they know that Keever has the experience and facilities to solve them. Let them prove it to you.

KNOWN FOR UNIFORMITY FOR MORE THAN 60 YEARS

TEXTILE SALES DIVISION
118 South Pleasantburg Drive
Greenville, South Carolina

THE KEEVER STARCH COMPANY

GENERAL OFFICES COLUMBUS 15, OHIO



You get all 3 when you specify Victor Ring Travelers

Quality comes first in most people's minds. In the case of ring travelers, quality means precision. **And precision means Victor Ring Travelers.** From the standpoint of metallurgy, size, shape, and polish, they're made right — and that rightness shows in production figures. But quality doesn't count unless you know you can get what you need when you need it. Again, Victor comes through. You enjoy same-day service on all stocked sizes and styles . . . exceptional speed of delivery on special orders, too. What about cost? Victor Ring Travelers are your most economical buy. Little wonder: like all Saco-Lowell parts, they're **built for better performance . . . backed by better service.**

SACO-LOWELL SHOPS

REPLACEMENT PARTS DIVISION

EXECUTIVE OFFICES: DRAWER 327, GREENVILLE, S. C.
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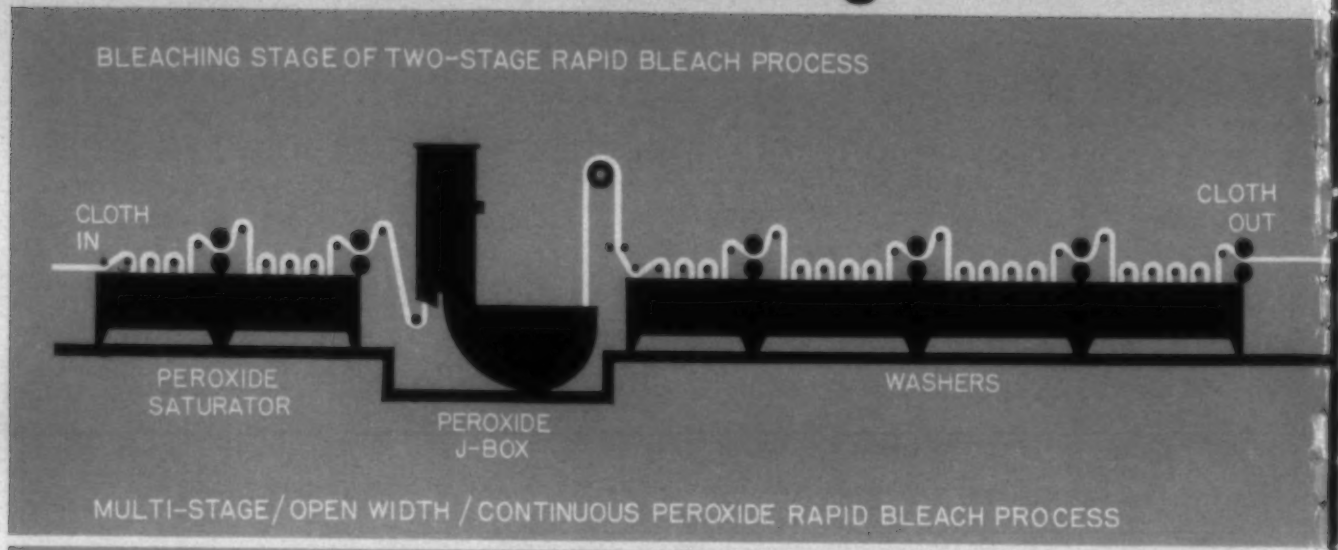
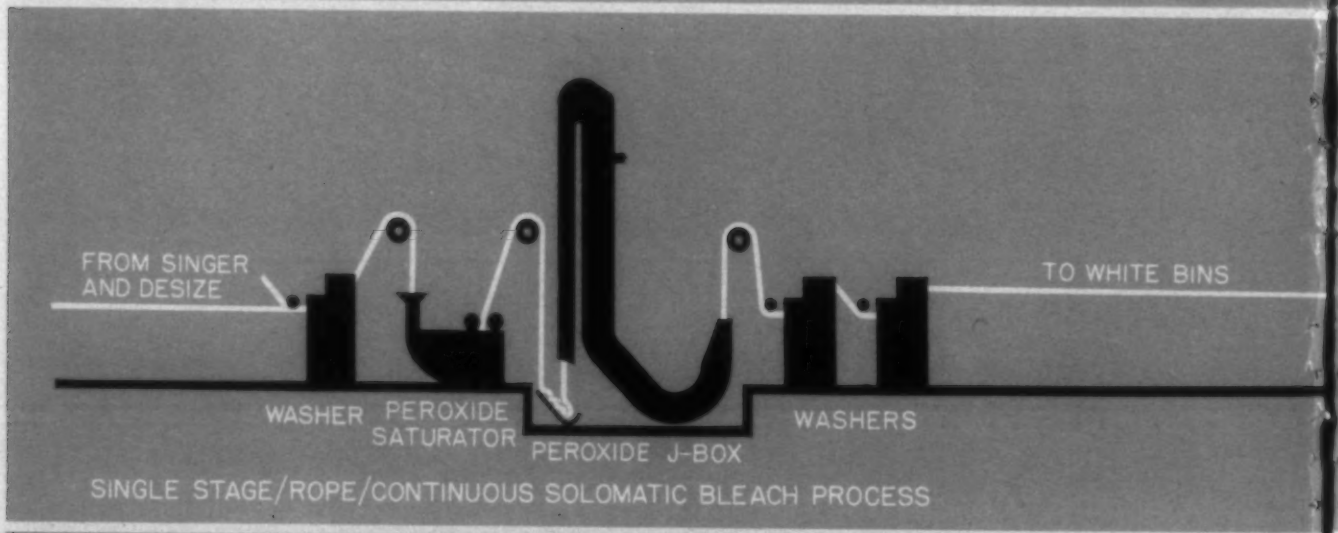
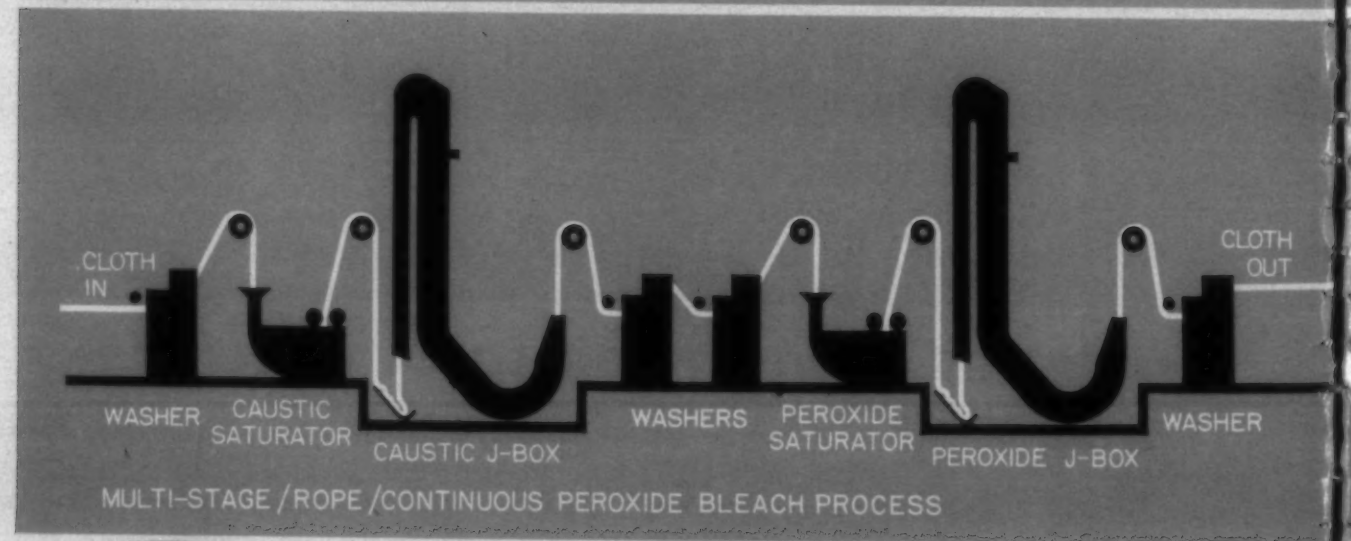
GREENVILLE, S. C.—P. O. Box 1698; CHARLOTTE, N. C.—P. O. Box 149;
GREENSBORO, N. C.—601 N. Elm St. Bldg.; SACO, MAINE—P. O. Box 230

You can reduce bleaching costs with







DU PONT
REG. U.S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY

ALBONE®
hydrogen peroxide

SOLOZONE®
sodium peroxide

one of these Du Pont processes

Whether your textile mill is large or small, the basic units shown here can be tailored to your needs. For example, they can be expanded to include desizing, acid souring, drying and/or mercerizing, or designed to fit available floor space.

Reduce costs . . . solve production problems with one of these modern Du Pont continuous processes:

◀ **RAPID BLEACH PROCESS** handles medium- and heavy-weight cottons and certain synthetics. Replaces slow, costly jig process. Two stages require only 8 minutes each for cloth storage in caustic scour and peroxide bleaching. System cuts J-box costs up to 50% and reduces headroom requirements.

◀ **SOLO-MATIC BLEACHING PROCESS** employs minimum equipment for handling medium- and lightweight cottons, colored yarns and cotton-synthetic fabrics. This compact, single-stage system uses highly alkaline hydrogen peroxide. For many fabrics, it eliminates the need for a caustic prescour. Occupies only 60% of space needed for two-stage range and can be operated by one man. Less power, steam and labor required.

◀ **MULTI-STAGE BLEACHING PROCESSES** include both rope and open-width systems for large-volume production of medium- and some heavy-weight cotton fabrics. Utilizes simple chemical treatment in each stage. Can be set up to handle cloth speeds exceeding 250 yards per minute, to produce from 1,000 to 6,000 pounds of bleached cloth per hour, depending upon your individual plant requirements.

NEW BOOKLET AVAILABLE! For more information, contact your nearest Du Pont technical representative, or write for new booklet* which details all of Du Pont's continuous bleaching processes. Du Pont, Electrochemicals Dept., Peroxygen Products Div., Wilmington 98, Del.

**Available only in the U.S. and Canada*

PERDOX®
sodium borate perhydrate

OXONE®
monopersulfate compound

Sodium Perborate Tetrahydrate

IDEAL REVOLUTIONIZED DRAWING

Any one of Ideal's many improvements in the drawing process was a great step forward by itself. Taken together they add up to a truly revolutionary advance and a valuable contribution to the textile industry.

IDEAL GAVE YOU HIGH SPEEDS

Until 1948, mill men and machinery manufacturers were convinced that quality work could not be produced with drawing speeds in excess of 90 to 110 FPM. Since then Ideal engineers have introduced one improvement after another so that today Ideal Feathertouch® Drafting frames are producing superb sliver at six to eight times the pre-Ideal speeds.

IDEAL IMPROVED SLIVER QUALITY

Ideal's patented ball bearing spacer sections, replacing turning collars, eliminate cutting, bruising or damaging of fibers. Ideal's evener action in third and fourth line of rolls automatically evens out thick and thin places, producing more even sliver. Ideal's exclusive flute construction imparts a strength-increasing crimp to the fibers, enabling longer staples to carry the shorter staples through each drafting zone. Ideal's ball bearing construction eliminates danger of oil spots. Ideal's Vacuum System keeps sliver cleaner and reduces slubs. All these add up to Ideal's famous "Feathertouch"® action—immeasurably superior to any other drawing frame action.

IDEAL ADAPTION TO CHANGING REQUIREMENTS

The Ideal Feathertouch® Drafting System is readily adaptable to processing carded and combed cotton, wool and all types of synthetics and blends, of staple lengths ⅞" through 3".

IDEAL CUT COSTS

Ideal Drawing Frames require fewer adjustments, less power and fewer replacements. High production and extremely compact construction saves floor space. Per pound of sliver, the New Ideal Drawing Frame is your most economical drawing.

Some of these improvements have since been copied or equalled on other drawing equipment but the most significant ones are covered by patents and will be found only on Ideal Feathertouch® Drafting. So, to get the best, get Ideal. Let us send you full information.

Ideal Industries, Inc.
Bessemer City, N. C.

THE ORIGINATORS OF HIGH SPEED DRAWING

For The Textile Industry's Use

– NEW MACHINERY, EQUIPMENT AND SUPPLIES –

New Computer Technique

International Business Machines Corp., White Plains, N. Y., has introduced a new Management Operating System (MOS) for textiles. A new computer technique, the MOS is designed to provide up-to-the-minute data on product demand forecasting, loom scheduling, materials planning, inventory management, preparation of production orders and performance evaluation and control.

The system is based on the same concept as the company's MOS program for other industries. It utilizes the processing speed and storage capacity of the solid-state 1401 and 1410 data processing systems equipped with Ramac disk files.

In operation, the unit can be activated by a customer order or inquiry contained in one or more punched cards. By interrogating the computer, management can determine the effect of an order on each stage of the production cycle. By feeding market forecast data into the system, management can also test, in advance, the effect of any change in product demand on the entire operation.

The computer's high capacity random access disk storage units are the key to its operation. In an I.B.M. 1410 unit, for example, these disks can contain up to 280 million characters of information —ten disks at 28 million each.

Whenever changes take place in any area of production, the company reports, pertinent records are up-dated in other affected areas. This feature allows management to keep track of the status of all departments.

(Request Item No. L-1)

Brown Reactive Dye

A new pure yellowish brown shade, Cibacron Brown 4 GR, reactive dye has been introduced by Ciba Co., Fair Lawn, N. J.

The new dye shows excellent solubility, light fastness and good stability. It is recommended for the print trade. In addition to printing, the dye is suitable for all types of application—pad-steam, thermofix, exhaust and cold pad batch.

The new dye has good fastness to light after resin treatment and is suitable for use as a component in the production of brown, olive and khaki shades. Dark brown shades are produced by combining it with Cibacron Black BG. It is also suitable for printing on wool, unions and natural silk.

(Request Item No. L-2)

Gage, Morris

Gaston Gage, dean of the Clemson College School of Textiles, and Robert K. Morris, International Business Machines Corp., discuss IBM's MOS (Management Operating System) for textiles, a new computer technique developed for processing on IBM 1401 (*model in foreground*) and IBM 1410 computers with random access disk files. The technique was introduced at the conclusion of a three-week course in textile manufacturing at Clemson for IBM sales representatives.

New Type Dacron To Give 20% Greater Rope Break

The Du Pont Co., Wilmington, Del., has announced limited availability of a new type of Dacron polyester industrial yarn having up to 20% more rope break strength than present types used in the cordage industry.

The new fiber, designated Type 67, is designed to retain the qualities of outdoor durability and resistance to stretch, abrasion, mildew and fusing at the bitts.

Priced at $1.53 per pound, it will be available in 1100-denier. At present limited quantities are being evaluated in the trade. Type 67 will be produced at Du Pont's Kinston, N. C., plant on new equipment now being installed.

(Request Item No. L-3)

Polypropylene And Acrylic Fluorescent Brighteners

A fluorescent brightener has been developed by General Dyestuff Co., New York City, which is designed to substantially brighten polypropylene, a polyolefin polymer which has proved extremely difficult to dye.

The new brightener, Blancophor MO-89, may be applied to the finished fiber or introduced into the melt. The significance of the polypropylene brightener lies in the fact that this polyolefin normally yellows readily on exposure to sunlight and UV radiation. The new brightener, a white fluorescent dyestuff, optically masks this effect, opening new consumer uses for polypropylene fibers.

In addition to MO-89, the company has introduced Blancophor AM-80,

FOR THE TEXTILE INDUSTRY'S USE—

which is a new acrylic brightener. It is designed to work on as well as in all acrylics. It has thus far been experimentally applied to acrylic fibers and filaments and added to acrylic dope with outstanding brightening effects.

Both compounds are efficient, requiring minimal concentration to obtain maximum brightness, which will be of considerable economic interest to users, according to the company.

Both materials are supplied in readily dispersible powder form and are not soluble in the commonly used solvents. Early tests indicate significant washing and dry cleaning resistance, and good heat and light stability. No special techniques for application or incorporation are required for textile uses, and standard dyeing procedures may be followed. Availability of semi-commercial quantities of both brighteners is planned for early 1962. At present swatched data sheets on both MO-89 and AM-80, showing treated and untreated fabric samples for comparison, and describing properties and application techniques, are available.

(Request Item No. L-4)

Power Transformers

Redesigned industrial power transformers featuring less floor space, simplified up-rating, increased capacity and reduced maintenance have been introduced by General Electric, Schenectady, N. Y.

The product improvements, suggested by 32 transformer users interviewed last year, have been applied to "preferred design" units rated 10,001 to 25,000 kva.

In addition, the transformers occupy 20% less area. This improvement, plus a 20% reduction in height and about a 10% weight decrease, are designed to make it easier to move and install the units.

Existing transformers can be replaced with new, higher-rated units of the same or smaller physical size. This permits industrials to increase power utilization and plant production without costly substation rebuilding, according to the company.

Increases in load can be handled by one of the new triple-rated preferred design units. When initially purchased as a self-cooled unit, this transformer can have its capacity increased by 33% merely by adding fans, and by another 33% with the addition of a few more fans and a pump.

The transformer oil preservation system does not need even periodic inspection because the sealed-tank system, used on all ratings up to 25,000 k.v.a., eliminates gas bottle replenishment, balky gas regulators and gas line leaks.

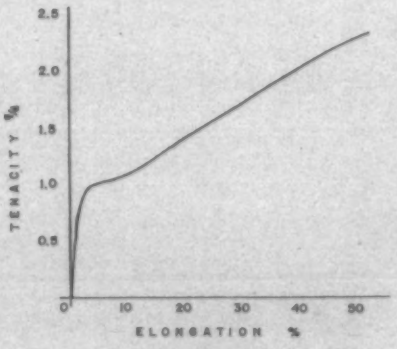
(Request Item No. L-5)

Cyanamid Develops Series Of Heavy Acrylic Fibers

A new series of heavy denier acrylic staple fibers ranging from 20 to 80-denier has been developed by American Cyanamid Co., New York City.

The fibers are heavier than those now in general use in apparel or home furnishings, according to the company. Very pliable, an 80-denier single filament can be tied into a tight knot without breaking or cracking.

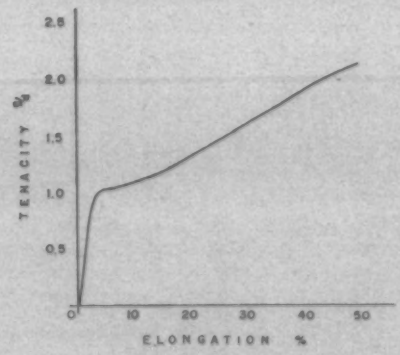
TYPICAL STRESS STRAIN DIAGRAM
40 DENIER STAPLE



Under laboratory evaluation, the fibers showed a dyeability comparable to that of the company's regular staple fibers. Complete penetration of the dye takes longer, but produces good color fastness and value. Other physical properties are similar to those of the company's 15-denier acrylic fibers.

Tenacities in grams per denier for 20, 40 and 80-denier fibers are 2.4, 2.5

TYPICAL STRESS STRAIN DIAGRAM
80 DENIER STAPLE

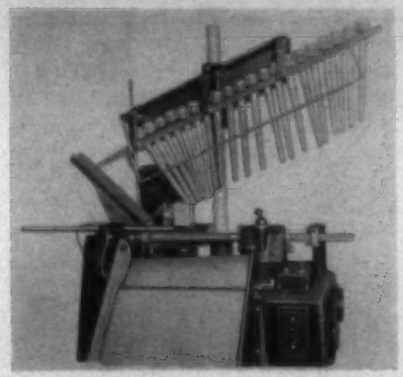


and 2.2, respectively. Percent elongation is 50, 56 and 50 for the 20, 40 and 80-denier filaments. Loop tenacity in grams per denier is 1.7, 1.4 and 1.4 for the 20, 40 and 80-denier fibers. In the same order, percent loop elongations are 29, 22 and 26; initial modulus in grams per denier is equal to 43, 46 and 39; and the compliance ratio for the fibers is .8, .8 and .9.

At present, the fibers are available only in staple form and in small quantities.

(Request Item No. L-6)

Electronic Bobbin Tester



An electronic bobbin tester, previously used in the company's bobbin plant, has been released for general use by the Steel Heddle Mfg. Co., Philadelphia, Pa.

The unit semi-automatically measures the degree of runout of loom bobbins at the rate of 37 bobbins a minute and rejects those in excess of a preset level. This feature is designed to insure trouble-free winding and spinning and avoid misalignment problems in the shuttle.

The machine is 28x28x29" and weighs approximately 300 lbs. It operates on 115-volt a.c. current at five amps.

(Request Item No. L-7)

Acid Optical Brightener

The Hilton-Davis Chemical Co., Cincinnati, Ohio, has introduced Hiltamine Arctic White Acid Stable, an optical brightener designed especially for whitening cotton, viscose rayon and resin-finished goods.

It can be used in direct padding, resin-finish formulation and exhaustion dye baths, such as becks and package machines. Because it is odorless and contains no excess alkali or volatile organic solvents, it is said to be safer and easier to handle.

The new product is stable to storage for prolonged periods at normal temperatures. It may be used with peroxide, sulfite and perborate-type bleaches, and is compatible with starch, resins, soaps, non-ionic and anionic detergents.

(Request Item No. L-8)

Comfort Heating Convector

A new convection heater has been added to the Chromalox line of Edwin L. Wiegand Co., Pittsburgh, Pa.

The units are available in three enclosure sizes, each in five lengths. The heater is usually wall mounted under a window sill to counteract cold downdrafts as it heats the room. A full line of accessories, including end caps, sleeves, corners and filler is designed to permit continuous wall-to-wall installations when desired.

The cabinet enclosure is made of 16-gauge steel with baked-on enamel finish in a choice of seven colors. Terminal boxes permit connection to either left or right hand wire entry. Low front cover surface temperatures are a result of Chromalox Fintube heating elements.

FOR THE TEXTILE INDUSTRY'S USE—

An automatic reset line voltage thermal overheat cutout is built in to prevent overheating.

Integral or wall mounted line voltage thermostat is optional for automatic temperature control of one or more heater sections. An integral relay is also available for remote control by time clock through separate 120-volt control circuit.

(Request Item No. L-9)

Impregnation Liquors

Farbwerke Hoechst AG., Frankfurt-Hoechst, West Germany, and Hoechst Chemical Corp., West Warwick, R. I., have introduced nine special LL grades of Hoechst Naphthol AS products. The range is comprised of AS-BOLL; AS-CALL; AS-ITRILL; AS-LCLL; AS-SWLL; AS-KGLL; AS-LBLL; AS-LGLL; and AS-SGLL.

The Naphthol product may be dissolved into dilute hot caustic soda solution. No spirit or highly sulphonated oils are necessary. Protective colloids, normally employed to stabilize Naphthol AS impregnation liquors, are not required for LL grades.

The impregnation liquors have good stability and clarity even in hard water. Solutions of most grades foam very little and any foam formed decomposes very quickly so that the difficulties associated with intensely foaming protective colloids are avoided, according to the company.

(Request Item No. L-10)

Spring Assist Hand Truck

Fig. 1—This new tilt truck has been designed to eliminate accidents, straining and employee fatigue.

Safer, speedier and more efficient unloading of vulcanized fiber receptacles are features of a new spring assist tilt hand truck designed by the Fisher Division of National Vulcanized Fibre Co., Wilmington, Del.

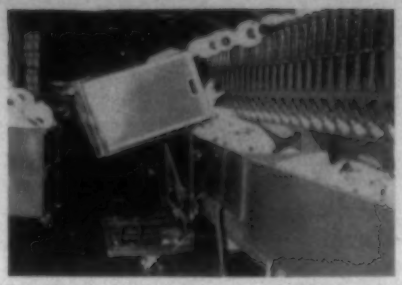


Fig. 2—Spring attached to horizontal pipe helps in tilting receptacle.

The new device is designed to permit at least a 50% labor reduction by requiring only one worker to perform the unloading operation where two or three were previously needed. Accidents, straining and employee fatigue have also been practically eliminated by the use of a positioning device which prepares the receptacles for unloading, according to the company.

The truck is L shaped and of double frame construction with the receptacles resting on a movable inner frame which swings outward to a horizontal position for unloading. The worker guides the receptacle into the unload position, removes the contents of the container and restores it to a vertical position. A spring attached to the horizontal pipe on top of the truck assists the worker in tilting the receptacle, while a hydraulic plunger mechanism provides support for the inner frame as the frame itself is being unloaded.

The truck is made of angle steel and mounted on four 4" steel plain-bearing casters facilitating the rolling and maneuverability of the device.

(Request Item No. L-11)

Farbwerke Hoechst Adds 3 Dyes To Remazol Line

Farbwerke Hoechst AG, Frankfurt-Hoechst, West Germany, has announced the introduction of three new dyestuffs to its Remazol line—Yellow GR, Yellow GGL and Brilliant Red BB.

Yellow GR is designed to produce brilliant yellow shades of high intensity on all cellulose fibers and polyamide articles. It is suitable for the exhaust process and can also be employed in all conventional padding and continuous processes. Dyeings and prints are fast to light, washing and perspiration. They can be discharged white or colored and are resistant to dry cleaning. They are also suitable for vulcanizing styles, PVC-coatings and synthetic resin finishes. The

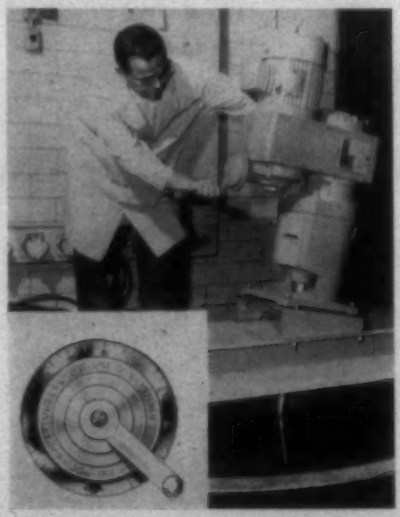
dyestuff is recommended especially for fashionable brown and olive green shades in combination with the company's Remazol Brilliant Violet 5R and Remazol Brilliant Blue R resp.

Yellow GGL yields pure greenish yellow shades with good light and washing fastness. It can be applied on cellulose fibers by any of the Remazol printing, padding and exhaust processes. Dyeings can be discharged pure white. The affinity of the new dyestuff from long liquors is good. Especially brilliant green shades are obtained with Remazol Yellow GGL in combination with Remazol Turquoise P and it is also highly suitable for dyeing on polyamide fibers, according to the company.

Brilliant Red BB, a new reactive dyestuff of excellent solubility and high intensity, is designed to provide brilliant, bluish red shades with good light and wet fastnesses on all cellulose fibers and polyamide materials. The dyestuff can be employed for all exhaust, padding and printing processes. It can be discharged pure white and colored, even in full shades. Dyeings and prints are stable in dry cleaning and suitable for vulcanizing styles, PVC-coating and synthetic resin finishes. The dye is especially recommended for preparing brilliant pink shades fast to light.

(Request Item No. L-12)

Mechanical Variable Speed Drives For Process Mixers



Mechanical variable speed drives, a major adjunct to the Lightnin portable and fixed mounted mixer line, have been announced by Mixing Equipment Co., Rochester, N. Y.

Reported to possess infinitely variable speeds, up to a maximum of five-to-one ratio, the new mixer component broadens equipment flexibility for the widest possible application. The unit is recommended by the company for frequent changes in fluid viscosity; varying liquid levels; reduced speeds during tank drainage; pilot plant studies; multiple step operations requiring closely-controlled agitation; and elimination of splashing and aeration.

The new variable speed drive is a compact accessory. In contrast with hydraulic drives requiring special pump and cooling systems or electronic drives necessitating an a.c.-d.c. rectifier, the development becomes a functional part of the mixer without complicated auxiliary equipment. Recently-introduced Lightnin portable and fixed mounted mixers now in operation can be converted to accommodate these drives.

It is designed to offer infinitely variable speeds over a wide range through mechanical interaction of adjustable diameter discs and a ribbed belt. Belt replacement is accomplished without affecting permanent belt alignment.

Field lubrication of splines is achieved through recessed fittings without re-

moval of cover plates or end brackets.

A large speed setting dial is designed to assure limitless, precise speed changes throughout the entire speed range. The dial incorporates large numerals and scribe marks on stainless steel. Settings may be marked for specific operations or processes. Adjustment mechanism is sealed with factory lubricated construction for long trouble-free life and smooth speed regulation.

Remote controls are available. A tachometer generator mounted on the output shaft gives accurate speed readings on a remotely-mounted indicator. If desirable, the indicator dial can be calibrated to show exact speed of the output shaft.

(Request Item No. L-13)

Automatic pH Controller

The New Brunswick Scientific Co., New Brunswick, N. J., has developed an automatic pH controller which is designed to regulate, monitor and record pH in any active fermentation or chemical process, at laboratory, pilot-plant and production levels.

It has its own indicating pH meter and strip-chart recorder integrated with a peristaltic-action addition pump and a set of timers. The pH instruments are standard Leeds & Northrup units, and may be regulated at any pre-selected level throughout the entire acid-base range with an accuracy of ± 0.1 pH.

Autoclave, plug-in electrode assemblies have specially insulated wire leads and will withstand repeated steam sterilization at temperatures up to 250° F. and pressures up to 100 p.s.i. The electrodes are sterilized in place by means of electrode adapters which can be mounted in the fermentor head or in the side of the reaction vessel. These adapters are available in virtually any length for working volumes from 1 liter up to full production levels.

The desired pH level is automatically maintained as small quantities of buffer solution are added to the reaction vessel intermittently by a peristaltic metering pump. Actuated by an addition timer, the pump can be set to operate for any length of time from 0 to 15 seconds, depending on the working volume or the speed of the reaction. A variable time delay between buffer addition cycles allows the buffer solution to be mixed in the reaction vessel. This process is repeated until the pH of the solution corresponds to the control setting. Where reaction speed is exceptionally rapid, the timers will be continuously energized to maintain desired pH within a tolerance of ± 0.1.

Two models of the controller are available. Model pH-161 controls either acid or base, while Model pH-162 provides dual control of both acid and base. Both are adaptable to New Brunswick fermentors as well as most fermentation or reaction vessels.

(Request Item No. L-14)

Ball-Bearing Expanders

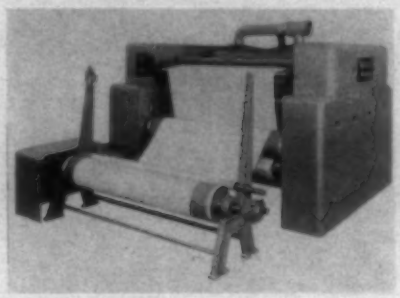
Two new sizes of fixed-bow ball bearing expanders have been introduced by Mount Hope Machinery Co., Taunton, Mass. One is a 3″ diameter expander to replace an existing unit. The other is 5⅛″.

The new 3″ diameter fixed-bow ball bearing expander will replace Mount Hope's present 3″ bushing-type unit. Its ball bearing design provides a free-turning roll which is designed to run at greater speeds than were possible with the bushing type. The unit has a $1\frac{5}{8}$″ hex axle with either plain (for dry service) or sealed (for wet applications) ends. Its cap-type bracket is the same type as that used on Mount Hope's 4¼″ expander.

The 5⅛″ diameter expander roll will make it possible for a customer to purchase a less expensive and smaller roll for jobs which previously would have called for a 6¼″ roll to meet tension, speed and precision requirements. The new-dimension expander will have a complete line of sheaves and brackets similar to those of the 6¼″ unit.

(Request Item No. L-15)

High Speed Shear



A new high speed M-130 shear, designed to operate at speeds up to 190 y.p.m. with four complete sets of cutting parts, has been developed by Curtis & Marble Machine Co., Worcester, Mass.

The unit has been under mill evaluation at a Greenville, S. C., cotton mill since last February. Print cloths and broadcloths averaging 50″ in width can be sheared at the rate of 10,000 y.p.h., according to the company. Also, it was found in the tests that a large scray capacity is required with a sewing time cycle for 180 yard loom rolls at 23 seconds.

(Request Item No. L-16)

Three Developments For Nylon By Cyanamid Co.

A new type Cumuloft carpet nylon yarn designed to give a more improved hand, appearance and tufting performance than traditional nylon yarns in carpeting has been developed by The Chemstrand Corp., New York City. Chemstrand also revealed the development of a nylon with greatly improved dyeing characteristics for deeper dye effects and a dye-resist material for application to carpet yarn.

The deep-dye nylon is designed to afford tone-on-tone combinations, color and white patterns, three-color patterns and other combinations. In addition it will absorb more dye from the dyebath and can be turned out with different dye affinities.

Chemstrand reports that with acid dyes, the new nylon will give better fastness properties, broader color selections and more uniform dyeing. A fugi-

Harshaw Diversified Products for the textile industry

ORGANIC PIGMENTS

For cotton printing and dyeing

DYESTUFFS

Disperse • Alizarine • Chrome • Acid

SHARPRINT CARRIER

Trademark

For maximum results on polyester fibers, many printers find the addition of Harshaw Sharprint Carrier to their disperse printing pastes solves the difficult problem of low color yield and lack of sharpness.

NF AND TECHNICAL

Tannic acid • Pyrogallic acid • Gallic acid • Benzoquinone

THERMOPRINT CARRIER

A recent addition to the Harshaw Carrier Family designed to aid the printer interested in running the thermosol method of color development on Polyester Fibers.

For more information about the items listed above write to:

ZINSSER DIVISION
The Harshaw Chemical Company
Hastings-On-Hudson 6, N. Y.

ZINC FLUOBORATE 40%

Zinc Fluoborate finds use as a curing agent for "wash and wear" finishes on textiles. Advantages claimed for Zinc Fluoborate as a curing agent include: (1) short curing time—one to two minutes at the curing temperatures required; (2) high crease resistance; and (3) low chlorine retention. Users also report that there is less tendency for polymerization to occur in the bath when Zinc Fluoborate is used.

ZINC NITRATE FLAKE

Harshaw Zinc Nitrate Flake is especially suited for polymerizing resins currently being used for wrinkle-free and wash-and-wear fabrics.

TYPICAL AVERAGE ANALYSIS

Zn	25.20%
FE	0.001%
Pb	0.005%
H_2O Insoluble	.008%
pH of 5% solution	5.1%

For more information about the items listed above write to:

THE HARSHAW CHEMICAL COMPANY
1945 East 97th Street
Cleveland 6, Ohio

HARSHAW

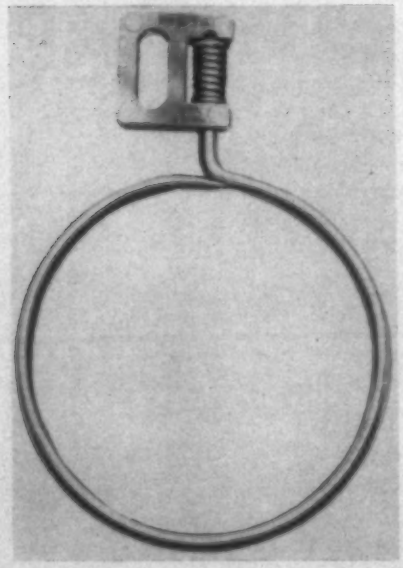
tive tint for identification has also been developed.

The chemical resist material is to be used to resist acid dyes and at the same time allow the nylon to accept disperse dyes. Totally resisted yarns will not dye but standard nylon will. For instance, if resist treated carpets were placed in an acid dye, the resist treated yarns would be white and the standard colored, If the carpet is put into blue acid dye with the resist yarn resisting the color, and is then placed in a yellow disperse dye with both yarns accepting it, the result would be a green and yellow pattern.

The resist material may be applied in a pattern application, spray application, package application or skein application.

(Request Item No. L-17)

Reversible Control Ring



Mitchell-Bissell Co., Trenton, N. J., has developed a new reversible balloon control ring designed to eliminate realignment of the control ring when changing direction of twist on spinning and twisting frames.

Its direction of twist can be changed by flipping the ring, according to the company. The base position of the ring remains unchanged. The spring-tensioned holder or fixed unit is of plain, durable construction designed to assure long, trouble-free operation. It is made of die-cast aluminum alloy, with all other parts being stainless steel. The ring is electro-polished.

(Request Item No. L-18)

Non-Acid Dyeing Creslan To Be Used With Type 58

American Cyanamid Co.'s fibers division, New York City, has announced a new acrylic staple and tow, suitable for cross dyeing with the company's present Creslan Type 58 fiber.

Cyanamid's new fiber, called Type 61, can be used in the production of high-bulk yarns. It is readily dyeable with basic and disperse dyes, but is not receptive to acid dyes. This factor will permit it to be cross-dyed in blends of 100% Creslan acrylic fiber with the company's present fiber, to achieve a range of heather, stripe and pattern effects.

Somewhat whiter than the Creslan Type 58, the new fiber can be readily processed on cotton, woolen, worsted and high bulk systems and is now under evaluation in field trials.

(Request Item No. L-19)

Continuous Bleaching

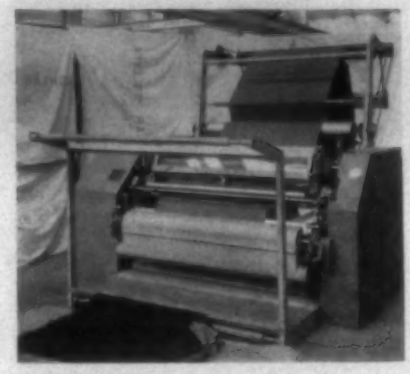
Successful results of a new continuous bleaching process for both synthetic and natural fibers have been announced by Olin Mathieson Corp., New York City.

The company reports that the process is operating at speeds of up to 450 y.p.m. double strand in one mill. Called the Textone process, it is designed to provide more even dyeability, increased bleaching, versatility, high fiber strengths and softer hand. Costs are said to be equivalent or lower than those of conventional bleaching processes.

Heretofore, the Textone process has been limited to batch bleaching because of corrosion and odor problems and the need for higher specialized equipment for continuous bleaching. The new Olin Textone process is designed to overcome these problems with only little modification of conventional continuous equipment.

(Request Item No. L-20)

Frankl Woolen Shear



The Raxhon Model US shear has been introduced by Ernest L. Frankl Associates Inc., New York City, the first of this type having been under mill evaluation at a Southern woolen and worsted plant for several months.

The unit incorporates a vacuum device which is designed to position the fibers for cutting and also to remove them immediately after cutting. Other features include an automatic seam detector and lifting device; a patented locking device for the shearing cylinder; micromatic settings; and speeds up to 60 y.p.m.

(Request Item No. L-21)

Spanyl Dyes Developed For Spandex Elastic Fabrics

The Althouse Chemical Co., Reading, Pa., has developed a group of Spanyl dyes designed to offer good union dyeing and good fastness properties between nylon and Spandex synthetic elastic yarns. The new colors do not require any unusual dyeing procedures or techniques but are applied according to standard practical dyeing procedures.

At the present time, the series consists of six colors: Yellow 2GS, Orange 2RS, Maroon TRS, Red 2BNS, Blue 3RDS and Grey NS.

Unions between cotton or rayon and Spandex fibers are readily obtained with a combination of the Superlitefast light fast direct dyes and the Spanyl colors

with the usual dyeing techniques, according to the company.

Fabrics containing the Spandex yarns require a good solvent emulsion scour, before dyeing, to remove the oil finish from this fiber. The same precautions of minimum tensions, in dyeing and drying, together with controlled drying temperatures and cooling cans are required that are used in processing stretch fabrics made from latex yarns.

Spandex fibers may be dyed with several classes of dyestuffs, but Althouse believes each class has its drawbacks: The dispersed colors dye the stretch yarns and nylon a different shade, giving the appearance of streaks or barre to the fabric. The acid type colors, as a class, have poor affinity for the Spandex fibers and rinse or wash off quite readily. The pre-metallized acid colors have a tendency to dye the Spandex yarns much heavier than the nylon, resulting in poor unions between these fibers. Such classes of dyes as vats and cationics have only a very limited use on these fibers, Althouse claims.

(Request Item No. L-22)

Wool And Nylon Dyeing Aid

Superb wetting qualities and excellent dye penetration, even where shrinkage occurs, are features of Lanamol CW, a new dyeing aid for use on wool and nylon fabrics and yarns by Allied Chemical's National Aniline Division, New York City.

Lanamol CW provides additional advantages such as full and level dyeing, complete dye exhaustion and a freezing point of —15° C., which affords protection during Winter transit and storage.

The dyeing aid is a clear, viscous liquid with acidity at pH 4.0. Solubility in water is good in all proportions and surface tension of 0.07% aqueous solution is 42 dynes/cm. It is particularly recommended when used in conjunction with National Aniline's neutral dyeing, pre-metallized Lanamid dyes, but it may be employed with other National milling dyes and certain other acid dyes.

For dyeing wool, Lanamol CW is used with ammonium sulfate in a neutral or weak acidic, pH 4-6, bath. The scoured material is wet out completely in a bath containing 1% Lanamol CW and having a temperature below 100° F. One to three percent ammonium sulfate or acetate is added to the bath and the pH is allowed to come to equilibrium.

The dye is next mixed with an equal amount of cold water to make a paste, which is dissolved by adding hot to boiling water and stirring. This solution is strained into the bath that contains the fabric.

The temperature of the dyebath is slowly raised to the boil for ⅜ to one hour. If complete exhaustion is required, ½ to 1% of 28% acetic acid may be added and boiling may be extended for another 15 minutes.

Lanamol CW can also be used for dyeing nylon 6 and nylon 6,6 in a neutral or weak acidic bath. Here, the scoured material is wet out for 5 minutes at 70° F. The dye is dissolved and added in the same manner as for wool and is run cold for 10 minutes. Approximately 1 to 3% of Lanamol CW and 10% ammonium sulfate are added and the bath is allowed to run cold for ½ hour. Bath temperature is then slowly raised to the boil over a period of ⅜ to one hour. If necessary, it can be exhausted with a 2-4% of 28% acetic acid.

(Request Item No. L-23)

For the Mill Bookshelf

Laminated Plastics

Engineering data on Taylor laminated plastics and Tayloron vulcanized fiber is given by Taylor Fibre Co., Norristown, Pa., in its 1962 condensed catalog.

The data in the 8-page catalog is designed to be useful in selecting and applying these materials in electrical, electronic and mechanical applications. It suggests applications and gives corresponding N.E.M.A. grades, military specifications, color, forms and sizes in which furnished. The engineering data lists typical physical, mechanical and electrical properties of 25 of Taylor's products.

(Request Item No. L-24)

Preparing And Protecting New Or Cleaned Surfaces

Nalco Chemical Co., Chicago, Ill., has released a technical data file C4 concerning its Nalprep pretreatment for preparing and protecting new or freshly cleaned metal surfaces in cooling water systems.

The file includes a process bulletin which tells when, where and how to use Nalprep. In addition, technical data sheets on specific Nalprep products and reprints which document the history and theory of the products along with laboratory data and case histories are incorporated.

(Request Item No. L-25)

Recorders And Controllers

A new 12-page bulletin, GEA-6887A, describing its complete line of single and multi-point null balance recorders and recorder-controllers has been published by the General Electric Co., Schenectady, N. Y.

The null balance type recorders are designed to measure variables with a high degree of accuracy, ± ¼%, and at the same time provide sufficient torque to operate a variety of control devices such as switches and slidewires.

These instruments employ electronic servo-operated measurement systems, which are potentiometric, a.c. or d.c. bridge, and which, with proper circuit modifications, can measure the output of various sensing devices.

The bulletin also discusses typical measurements performed by the recorders and controllers and also gives information on features, dimensions, specifications, optional accessories and applications.

(Request Item No. L-26)

Materials Handling

The Cleveland Tramrail Division of The Cleveland Crane & Engineering Co., Wickliffe, Ohio, is offering a newly revised Booklet No. 2008-R covering engineering and application data for overhead tramrail or monorail type of materials handling equipment. Emphasis is given to Cleveland Tramrail's new Tarca Track, recently introduced.

(Request Item No. L-27)

Polyethylene Emulsions

The use of polyethylene emulsions in textile finishing operations is the subject of a new 30-page brochure published by Eastman Chemical Products Inc., subsidiary of Eastman Kodak Co., Kingsport, Tenn.

A description of the physical properties of Eastman's Epolene line of polyethylene resins is followed by data on the performance of Epolene emulsions both as a finish for cotton and rayon, and as a softener for use with the principal cotton wash-and-wear finishing resins. Conditions are outlined for treating textile fabrics, and test results presented indicating the improvements which can be expected in fabric properties such as tear and abrasion resistance, crease recovery and hand. The results of these and other test procedures are detailed in 14 separate tables.

In addition, the brochure gives detailed procedures for the preparation of emulsions with Epolene resins, including a section on selection of the proper surfactant.

(Request Item No. L-28)

Revised American Standards

Availability of three revised American standards in the textile field, including colorfastness to pleating, is being offered by the American Standards Association.

Approved by the A.S.A. and developed by the A.A.T.C.C., the revised standards include: "American Standard Resistance to Water Penetration (Impact Penetration Test), L14.78-1960"; "American Standard Colorfastness to Water: Distilled or De-ionized Water, Sea Water, and Chlorinated Pool Water, L14.83-1960"; and "American Standard Colorfastness to Pleating, L14.63-1960."

Copies of the revised standards are available at 40 cents each from the American Standards Association, Dept. P257, 10 East 40th St., New York 16, N. Y.

Pros And Cons Of Leasing

A fifth edition of its study on equipment leasing has been issued by the Foundation for Management Research, Chicago, Ill. Revised and expanded to 24 pages, the study is entitled: "The Pros and Cons of Leasing." A new section advises on renewals and options-to-buy at the end of the lease period. Also examined are the latest Internal Revenue Service rulings with regard to write-offs of payments on leased equipment. Single copies are available free from the foundation, 121 West Adams St., Chicago 3, Ill.

1961 A.S.T.M. Standards For Textile Materials

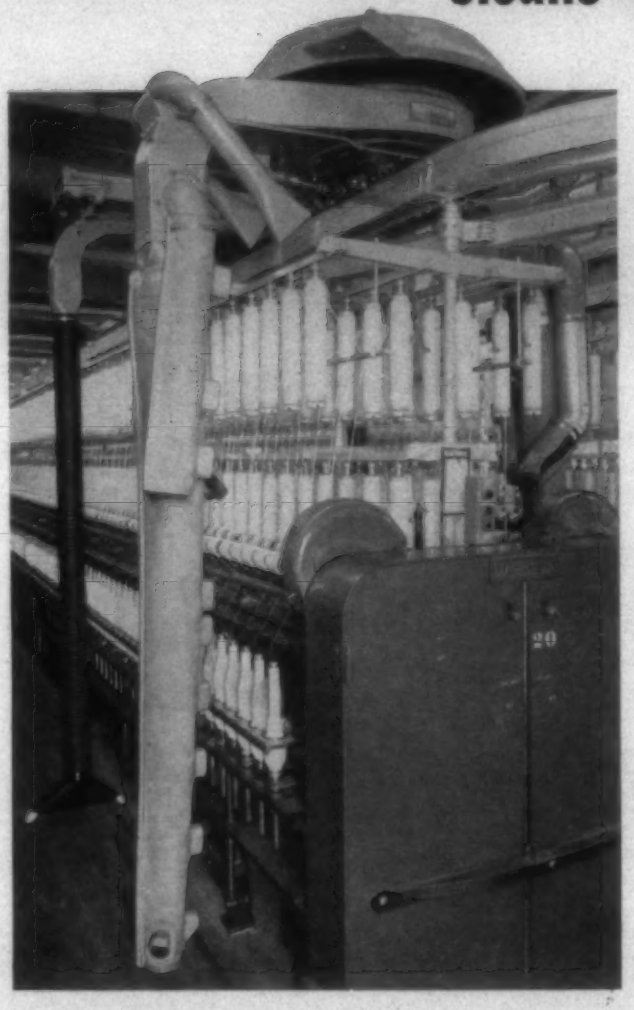
The American Society for Testing and Materials, Philadelphia, Pa., has published the "1961 Compilation of A.S.T.M. Standards on Textile Materials, D-13," which consists of 149 standards and tentative methods of test for many products in the textile industry.

The volume contains 45 new and revised standards and tentative methods of test; several proposed methods of test; a complete index; a list of the personnel in A.S.T.M. Committee D-13 on textiles and a summation of the scopes and objectives of the committee.

Among the new standards is a list of commercial moisture regains for textile fibers. New methods of test include those for determining yarn number (skein method), dimensional change of woven and knitted textiles and yarn severance of woven fabrics.

Copies of this book may be obtained from A.S.T.M. headquarters, 1916 Race St., Philadelphia 3, Pa., at $10 each. Price to A.S.T.M. members is $8.

Parks-Cramer FilterBlo cleans with filtered, lint-free air



In spinning yarn under the cotton system, the need to capture as much lint as possible, as quickly as possible, is well known to mill men.

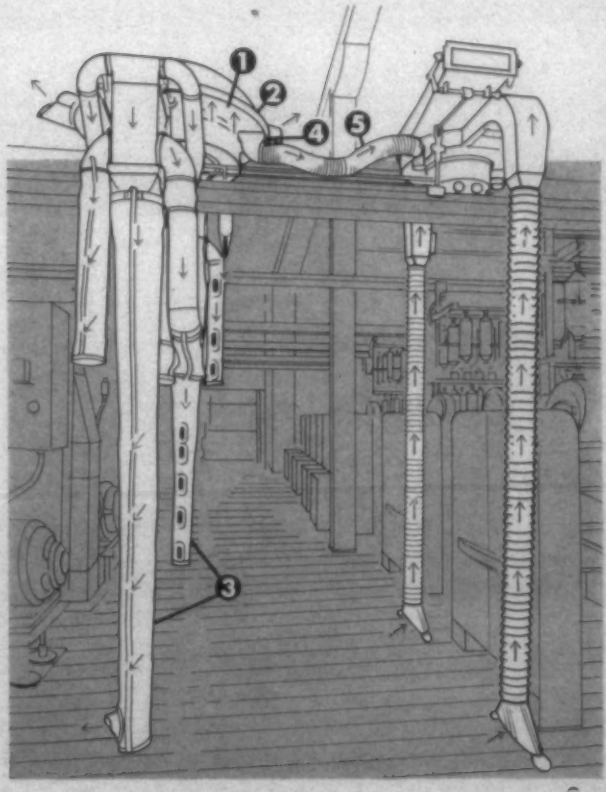
Conventional blowing cleaners do their work with lint-laden air. Lint blown into yarn in process is a cause of slubs, choked trumpets, traveler loading, ends down and yarn imperfections.

Parks-Cramer FilterBlo greatly reduces these troubles by filtering all air as it enters the traveling blower unit. Its filtering action appreciably cuts down the lint content of room air.

Recent controlled mill tests of Parks-Cramer's new FilterBlo disclose data we believe many of our mill friends will want to investigate.

Some examples:

Ends down	24% less
Clearer waste	8% less
Major yarn imperfections	16% less
Yarn breakage in cone winding	35% less



Room air enters FilterBlo through perforated, teflon-coated, stainless steel filter plate (1), located on bottom of rotating assembly. Revolving Up-draft blower (2) sweeps ceiling and overhead surfaces with diagonal air currents. Flexible sleeves with multi-outlets (3) are engineered to fulfill exact cleaning requirements. Air inlet filter is cleaned (4) continuously through connecting vacuum sleeve (5) coupled to TravelVac of either the Long Storage or automatic unloading type.

FilterBlo

... major advance in Traveling Cleaners

Parks-Cramer Company

FITCHBURG/MASS. CHARLOTTE/N. C. ATLANTA/GA.

Serving The Textile Industry

Roberts' Foreign Exports For 1961 Up Over 600%

Roberts Co., Sanford, N. C., has begun shipments of new Arrow spinning and twister machinery valued at more than $1 million to South Viet-Nam and Argentina. These shipments are this country's first yarn spinning machinery installation in South Viet-Nam, and Roberts' first major worsted machinery contract with an Argentina mill.

Contracts from abroad totaling more than $2.25 million have been received by Roberts so far this year, already up about 600% over 1960, according to the company. Shipments also have been made, or will shortly begin, to mills in Mexico, Israel, Ireland, Portugal, Canada and elsewhere.

More than 200 new model spinning and twister frames, plus the modernization of many thousand more spindles make up the contracts for export written by Roberts so far in 1961.

The Argentine contract, for 28 Arrow WM-1 frames, totals nearly $500,000 and is for Manulana, S.A., of Buenos Aires. The South Viet-Nam contract totals $625,000 and calls for 50 Arrow M-1 frames.

Contracts from five Mexican mills totaling $900,000 involve 83 Arrow M-1 spinning frames involving 32,000 spindles, plus the modernization of some 5,000 spindles of existing machinery. The Mexican mills involved are: T. La Carolina y Reforma, Fabricas Unidas San Manuel, Textiles Santa Fe, Hilados Teca and La Poblana.

Firm Formed To Offer Crosrol Web Purifier

Crosrol Carding Developments Inc. has been established in Greenville, S. C., to market the Crosrol Cotton Web Purifier and related textile equipment. Harvey H. Clinch, formerly of Atkinson, Haserick and Co., has been elected executive vice-president of the new firm. Offices have been established at 18 Beattie Place.

The Crosrol Web Purifier is mounted on the card frame between doffer and calender rollers. It is designed to eliminate large quantities of neps, destroy trash, seed and leaf particles left in the web after carding and yield smoother fiber for spinning. It may be used for high and low-quality cottons, combed and carded yarns, fine and coarse counts, for weaving and hosiery yarns. The unit is manufactured by Carding Specialists Ltd. of Halifax, Yorkshire, England.

Eastman Plans To Increase Polypropylene Production

Eastman Kodak Co. has announced plans for a 50% increase in its polypropylene production capacity. The unit, to be added to the present plant operated in Longview, Tex., by Texas Eastman, will have a designed capacity of 10 million pounds annually. When the addition is completed, Eastman will have a total annual production capacity of approximately 30 million pounds of Tenite polypropylene at its Texas facility.

Draper Corp. To Sell Page Check Control For Looms

Draper Corp. has signed an agreement with Page Belting Co. of Concord, N. H., to sell the Page check control as part of Draper's original equipment.

The control will be offered as optional equipment on new looms in the U. S. and Canada.

Described as an inertia check, the control is in use in over 100,000 installations.

Lightweight Belfast Cotton To Appear In Spring Shirts

Deering Milliken Research Corp., Spartanburg, S. C., has announced the development of Summerweight fabrics of Belfast cotton which feature regular Belfast standards for wash and wear and physical properties.

Manhattan Shirt Co. is adding a skip dent, batiste and batiste oxford of Belfast cotton to its Spring '62 line. B.V.D. and Piedmont Shirt Co., manufacturers of Wings Shirts, are adding a 100% Pima batiste in a short sleeve style. Lion of Troy has also announced plans for a Pima batiste in a slit sleeve style. Several other manufacturers are reported seriously considering the addition of lightweight Belfast cotton for the Spring season.

Courtaulds Offers To Buy British Enka

Courtaulds Ltd., London, England, has offered to buy British Enka Ltd., the United Kingdom subsidiary of Algemene Kunstidje Unie NV, which is also owner of American Enka, from the parent company for $5.25 million.

The purchase price is par value of the 7.5 million shares of stock outstanding in the British firm and hinges on the provision that 90% of the stock can be purchased.

The Dutch firm's newly formed subsidiary for the production of Nylon 6 in Northern Ireland is not included in the stock offer. Stockholders in British Enka can subscribe in proportion to their present holdings in Enka for share capital in the Ireland plant, according to the firm.

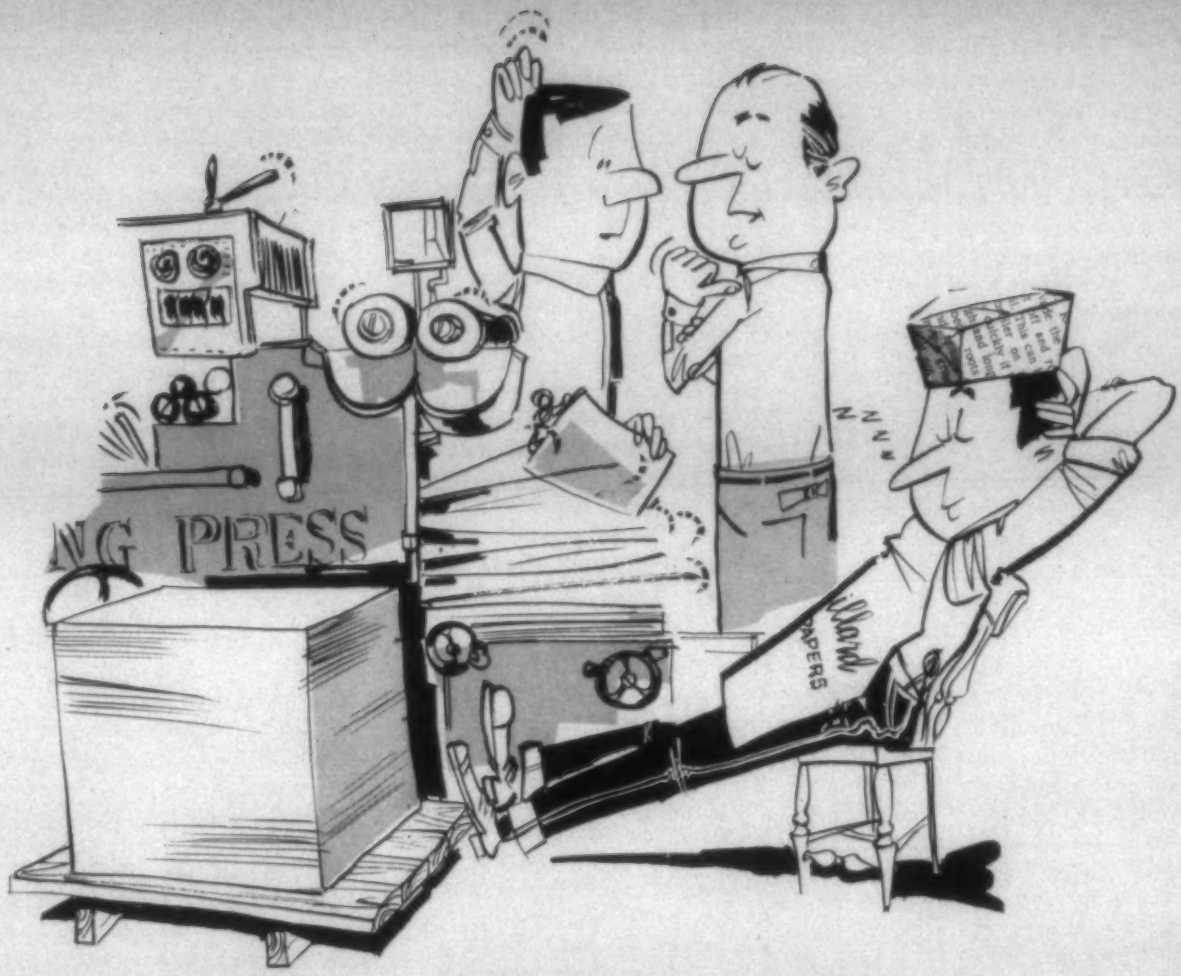
British Enka has an annual manufacturing capacity of approximately 25 million pounds of textile and industrial rayon.

American Viscose Sales For Third Quarter Up 13%

Sales of American Viscose Corp., Philadelphia, Pa., for the third quarter of 1961 were up 13% from a year ago and were the highest since the first quarter of 1960. Sales for the nine months ending September 30 of $156 million compared with $156.6 million for the first nine months last year.

Earnings from operations were at the best quarterly level since the second period of last year. Net earnings, including dividends from the company's investment in Monsanto Chemical Co. amounted to $2.4 million for the third quarter, and $5.8 million for the first nine months of 1961.

In a report to stockholders announcing the third quarter earnings, Dr. Frank H. Reichel, chairman, and Gerald S. Tompkins, president, stated that the corporation's operations in the third



"He doesn't have to watch the press when he's running DILLARD paper!"

quarter were favorably affected by substantially increased demand for textile yarns and staple and for cellophane. It was noted that the total quantity of textile yarns and staple shipped by Avisco during the third quarter were at the highest levels in over two years while cellophane shipments made a new high record.

AviSun Corp., owned equally by American Viscose and Sun Oil Co., is making notable progress, according to American Viscose. Its new polypropylene resin plant at New Castle, Del., is now in operation and was formally dedicated on September 21. This plant has an annual capacity of more than 100 million pounds of polypropylene resin and is the largest facility of its kind in the U. S.

Crompton & Knowles Heads For Better Year Than 1960

Crompton & Knowles Corp., Worcester, Mass., has reported third quarter earnings 15.1% higher than the same quarter last year. For the first nine months of this year earnings are 11% ahead of the same period in 1960. Sales were 10.5 and 13.3% higher than the comparable periods last year.

For the third quarter, earnings were $420,000 on sales of $7.4 million as compared with net profits of $365,000 on sales of $6.7 million last year. Nine months' figures show a net profit of $1.9 million on sales of $24 million against earnings of $1.7 million on sales of $21.2 million a year ago.

The company expects fourth quarter business to continue at a slightly higher pace than the last two quarters and current sales are expected to be slightly more than the $31.1 million registered in 1960.

Celanese Reports Sales Are Ahead Of Last Year

Celanese Corp. of America has reported net sales of $206.9 million for the nine months ended September 30 compared with sales of $202 million for the corresponding period of 1960.

Net income after taxes for the first nine months of 1961 amounted to $13.7 million compared with $14.6 million reported for the same period last year.

For the three months ended September 30, sales amounted to $73.4 million and net income was $5.1 million as compared with sales of $64.5 million and earnings of $4.5 million reported for the third quarter of 1960.

In the quarterly report to stockholders, Harold Blancke, president, said that sales and earnings for the third quarter of the year were affected by a brief shutdown of facilities at the corporation's Bishop, Tex., chemical plant and the Houston, Tex., polymer plant, during the September hurricane which struck the Texas Gulf Coast, and by a labor dispute at the Cumberland, Md., fibers plant which curtailed production. Blancke reported that physical damage at the Texas plants was negligible and that normal operations have been resumed at all three plants.

Frank W. Egan Completes 38,000 Square-Foot Annex

A new 38,000 square-foot expansion has been completed in time for Frank W. Egan & Co.'s 15th anniversary. Located in Somerville, N. J., the firm manufactures finishing machinery and equipment for the textile industry.

Costing some $350,000, the addition doubles the plant's floor area. Approximately 26,000 square feet will be used for manufacturing with the balance devoted to engineering, general offices and other service activities.

Du Pont To Establish Sales Subsidiary In West Germany

Du Pont de Nemours International S.A. of Geneva, Switzerland, will form a new, wholly-owned German subsidiary company, Du Pont Chemie G.m.b.H., for the sale of Du Pont textile fibers in Germany.

The new German company, with main offices in Dusseldorf, will be responsible for the sale of Du Pont fibers developed and in addition will provide technical assistance, merchandising and promotion services to German textile fiber customers.

The decision to establish the new subsidiary follows an agreement between Du Pont International and the Ernst Beck organization of Wuppertal-Barmen, sales representatives of Du Pont fibers in Germany since 1954. As a result of this agreement, Du Pont Chemie G.m.b.H. will take over the sales around the end of this year and most of the personnel of the Ernst Beck organization will be employed by the new German company.

Charles D. Wenrich, marketing manager in the New York office of the parent company's textile fibers department, will be transferred to Germany as managing director of the new sales subsidiary. Wenrich has had over 16 years' textile fibers experience in sales and marketing of Du Pont fibers.

To meet the growing needs of European customers, a new plant, owned and operated by Du Pont de Nemours (Nederland) N.V., will soon begin production of Orlon at Dordrecht, The Netherlands.

Proctor & Schwartz Sales Lower In Second Quarter

Lower sales for the second quarter ended August 27 have been announced by Proctor & Schwartz, division of Proctor-Silex Corp., Philadelphia, Pa., as compared with the like period last year.

The decrease was attributed to the lull in the textile and chemical industries. But sales activity has picked up, especially in equipment for the manufacture of felts and nonwoven fabrics. In addition, the recent agreement with William Bywater Ltd., Leeds, England, which gives the company exclusive rights for sales and manufacture of Bywater's needling machinery, is expected to boost sales in the future.

No figures were given for Proctor & Schwartz as a separate entity but consolidated net sales for the second quarter for Proctor-Silex were $11.6 million as compared with $11.1 million in the same period last year.

Montecatini Opens New W. Va. Polypropylene Plant

Montecatini of Italy and Novamont Corp., its wholly-owned American manufacturing subsidiary, dedicated their new Neal, W. Va., polypropylene operation October 25 and announced that the plant was officially on stream.

According to Lucio Lucini, president of Novamont, the new plant, located on a 200-acre site on the Big Sandy River near Huntington, W. Va., is capable of producing 30 million pounds annually of isotactic polypropylene. Distillation columns and general utilities, already built, are sufficient to enable the company to double polypropylene output.

Isotactic polypropylene products are the result of discoveries by Prof. Giulio Natta of the Polytechnic Institute of Milan. The first commercial plant for the manufacture of these polymers was

brought on stream by Montecatini in September 1957.

Of principal interest to the textile industry among the products manufactured from polypropylene is Montecatini's Meraklon fiber. Used alone or in blends with other natural or synthetic fibers, it is described as exceptionally strong and can have the texture of wool, cotton or silk. It is claimed to have more covering power per pound because of its specific gravity.

In addition to dedicating the new plant, Montecatini has announced the completion of licensing agreements with six Japanese companies to produce the isotactic polypropylene fiber. In the past ten years 18 Japanese companies have built plants using various Montecatini processes. Also there are presently 59 plants in Japan using the Fauser-Montecatini processes.

Draper Expects To Have Its Treufus In Mill By '62

Draper Corp., Hopedale, Mass., has announced that it expects to have one of its Treufus automatic spinning frame doffers in a mill by the end of this year.

The company plans to lease the unit and notes that since the machine is a new concept and a new unit, improved and refined models will be coming along, affording the mills an opportunity to try the newer versions as they come out under the lease or rental plan.

The first doffers are to be on filling spinning since that is where they lend themselves best, according to Draper. Later models will be used on warp spinning and perhaps twisters.

The new model is lower than formerly and has anti-friction and ball bearings. A new magazine has been designed to hold bobbins to be placed on the machine and the unit will have three of these.

American Cyanamid Sales And Earnings Show Rise

American Cyanamid Co., New York City, has announced net earnings for the third quarter just ended of $11.1 million, up some 30% from the $8.5 million registered last year. Sales in the third quarter were up 7% at $146.6 million as compared with $136.9 million for the same period in 1960.

Nine months' figures showed net profits 5.8% lower at $34.8 million as compared with $37 million last year. Sales for the nine months amounted to $447.5 million compared with $442 million.

Dr. Wilbur G. Malcolm, board chairman, said that the lower nine months' earnings were primarily attributable to increased selling and advertising expenses for world-wide marketing programs and higher research expenditures.

Eastman Evaluating New Polyester Elastic Fiber

An all-new, elastic fiber is currently being evaluated by Eastman Kodak Co., New York City.

Features of the fiber are its resistance to discoloration and deterioration from chlorine-type bleaches, its resistance to discoloration and deterioration from atmospheric fumes including oxides of nitrogen and its relatively high resistance to deterioration from heat.

Eastman reports that evaluation work and tests to date indicate that the new fiber has a higher modulus than any current spandex fiber or rubber. Tenacity is similar to spandex fibers and approximately double that of rubber. Its elongation is similar to that of spandex. Elastic

recovery, creep, power decay and related performance factors appear to be satisfactory. The new yarn is a monofilament with a circular cross section and imparts a uniform, smooth surface. It can be dyed to fast colors with dispersed dyes.

The new experimental elastomer will be known during its evaluation as T-1700 polyester elastic fiber.

Eastman expects to begin production of pilot plant quantities within the next few weeks and officials of the company stated that commercial production would be expected to follow successful trade evaluation.

Sonoco Products Acquires Canadian Container Firm

Sonoco Products Co., Hartsville, S. C., has acquired the Canadian firm of Industrial Steel & Fibre Ltd. through its subsidiary, Sonoco Products Co. of Canada Ltd. Industrial Steel operates plants at Terrebonne and Toronto, Que., and will operate as a division of Sonoco Products of Canada, with headquarters in Brantford, Ont. It is a manufacturer of spirally wound tubes and cores, cylindrical shipping containers and a complete range of fiber drums.

National Starch Third Quarter Earnings Rise

Earnings of $947,277 on sales of $15.9 million for the third quarter ended September 30 have been reported by the National Starch & Chemical Corp., New York City. These figures compare with earnings of $814,301 on sales of $15.0 million during the same period last year.

Nine-month figures show earnings of $2.8 million on sales of $48.6 million for 1961. For the same period in 1960, earnings were $2.5 million on sales of $45.6 million.

Midland-Ross 4th Quarter To Be Substantially Better

Substantially better results for the fourth quarter of 1961 than those for the preceding three-month period have been forecast by Midland-Ross Corp., Cleveland, Ohio. For the nine months ended September 30, consolidated sales amounted to $99.3 million. Net income, after adjustment for a tax reduction arising from a loss carry-forward of Industrial Rayon Corp. prior to the merger, was $3.3 million. Sales and net income for the third quarter were lower than had been anticipated because of the effects of temporary work stoppages at some automobile plants, the company reports.

Cluett, Peabody Third Quarter Net Up 36.7%

Cluett, Peabody & Co. reports net profits up some 36.7% for the third quarter ended September 30 and up 15.1% in the first nine months of this year. Net sales showed gains of 26.1% for the third quarter and 17.8% for the nine months. Earnings for the third quarter were $1.4 million on sales of $35.3 million as compared with earnings of $1 million during the same period in 1960. Nine months' figures show earnings of $3.5 million on sales of $92.1 million against earnings of $3 million on sales of $78.1 million for the comparable period last year.

Saco-Lowell Shops Begins Sale Of DuoCard Licenses

Licensing of textile plants to install the new DuoCard system has been begun by Saco-Lowell Shops, Easley, S. C.

Application for licenses can be made to any Saco-Lowell sales representative and installation plans are available for use when the license is issued, Saco-Lowell points out.

The DuoCard system was invented and developed by Swift Spinning Mills of Columbus, Ga. Patent protection has been applied for by Swift and Saco-Lowell has the sole right to license users of the system.

Stein, Hall Shows Rise In 9 Months Sales, Earnings

Stein, Hall & Co., New York City, has reported earnings for the nine month period ending September 30 of $693,000 on sales of $43.7 million as compared with earnings of $729,000 on sales of $42.2 million in the same period of 1960. Third quarter earnings were $262,000 as compared with $166,000 for the same period last year. The company expects results for 1961 to be favorable as compared with 1960.

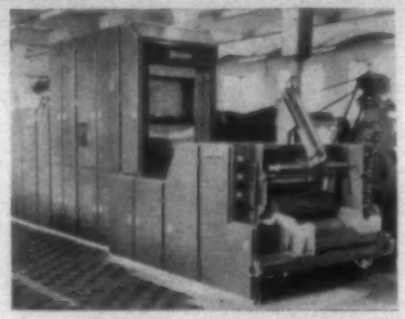
Draper Corp. Enlarging Spartanburg Facilities

Draper Corp. has announced that it is enlarging its shop facilities at Spartanburg, S. C., by an additional 35,000 square feet. Construction has already begun on the $250,000 expansion which is designed to give the company the largest machine shop of its type in the state.

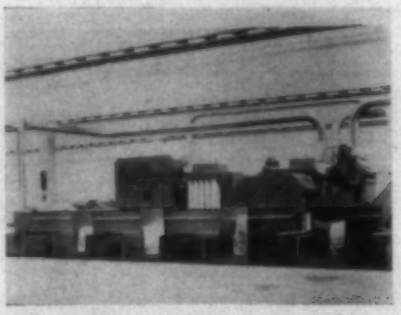
In 1958, Draper increased its foundry facilities by approximately 70,000 square feet and added some 300 employees. The new expansion will also increase the number of employees but no official figure has been given.

Whitin Adds German Units To Opening, Picking Line

Whitin Machine Works, Whitinsville, Mass., has announced that it will sell and service the complete opening, cleaning and picking machinery line of Trutzschler & Co., Rheydt-Odenkirchen, Germany, in the U. S. and Canada.



Trutzschler cotton picker.



Trutzschler automatic cotton plucker.

Trutzschler hopper feeder with a tandem downstroke cleaner.

The Trutzschler Co., a relative newcomer to the American textile industry, was founded in Saxony in 1888. It recently moved operations to its present location where it employs some 500 people in a modern, well-equipped plant.

The new machinery is to be sold and serviced under the Trutzschler name.

Schlafhorst

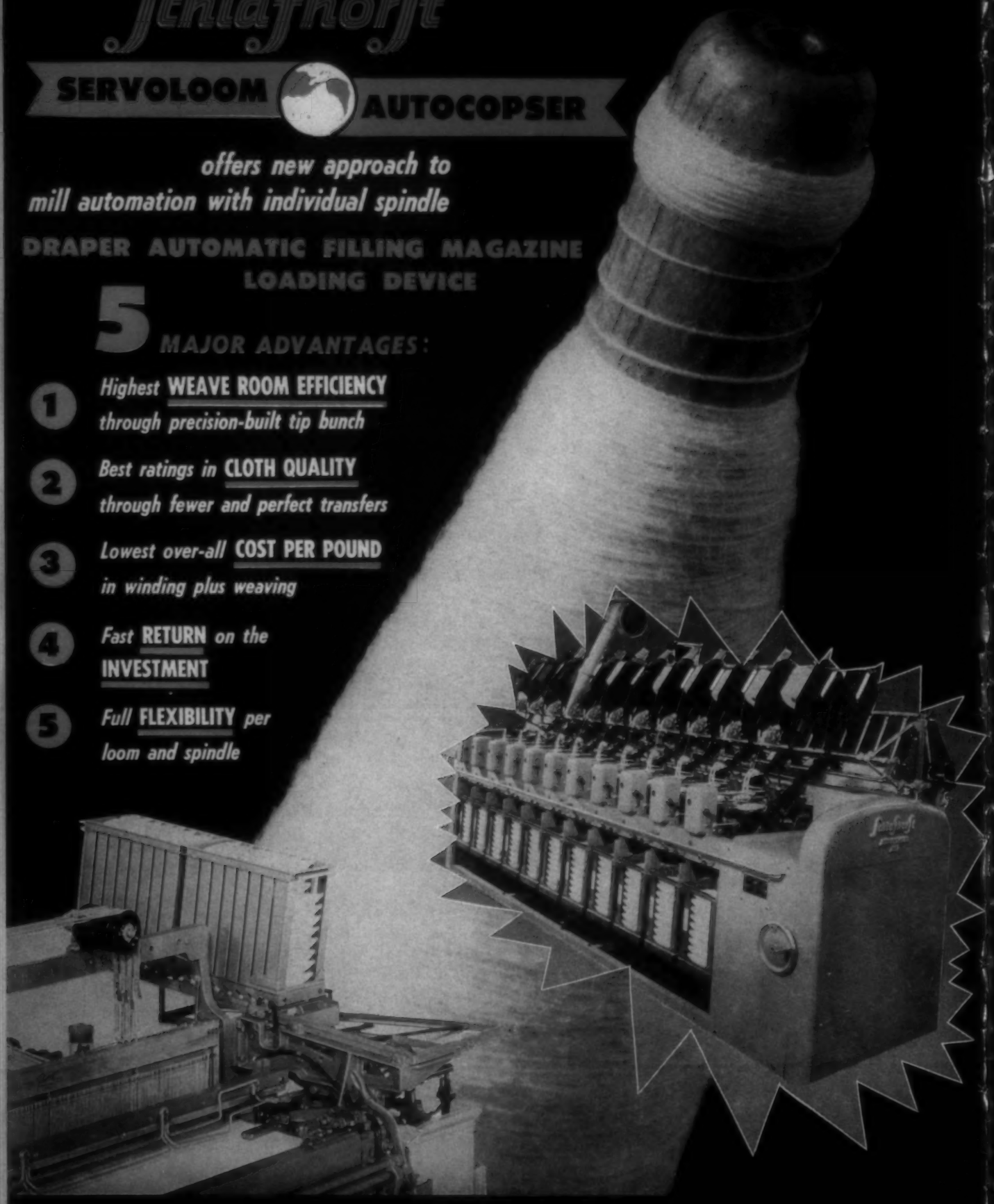
SERVOLOOM AUTOCOPSER

offers new approach to mill automation with individual spindle

DRAPER AUTOMATIC FILLING MAGAZINE LOADING DEVICE

5 *MAJOR ADVANTAGES:*

1. *Highest* **WEAVE ROOM EFFICIENCY** *through precision-built tip bunch*
2. *Best ratings in* **CLOTH QUALITY** *through fewer and perfect transfers*
3. *Lowest over-all* **COST PER POUND** *in winding plus weaving*
4. *Fast* **RETURN** *on the* **INVESTMENT**
5. *Full* **FLEXIBILITY** *per loom and spindle*



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CHARLOTTE, N. C., U. S. A.

textile bulletin

VOL. 87 DECEMBER 1961 NO. 12

The Two-Price System: King Cotton's Ransom

IMPORTS ARE DAMAGING, BUT PAYMENT OF COTTON SUPPORT PRICES IS INDUSTRY'S COSTLIEST PROBLEM

By JAMES E. ROBISON*
Indian Head Mills

COTTON is still King of the fibers. It accounts for 65% of all fiber consumption in this country and even more throughout the world. Cotton is a wonderful fiber. It can be warm in the Winter, cool in the Summer and crisp and clean to the touch. It can take all kinds of punishment—punishment in ginning, storing, handling—in carding, spinning, weaving, bleaching, dyeing and printing. It can take punishment from laundering, ironing, wear, abrasion, pull and stretch. Cotton can and has throughout the ages taken all kinds of punishment from many sources. But the greatest punishment inflicted upon this magnificent fiber is the economic punishment which it is getting from the Congress of the United States.

King Cotton—American cotton that is—is in deep trouble—captured by Congress and held in captivity for many years. A King's Ransom has been demanded and it has been paid—again and again. But King Cotton still languishes in captivity—and new and more onerous payments are being demanded!

How much ransom has been paid? Who has paid it? What is the result? How much more ransom is now being demanded? Who will pay it? What will be the inevitable result? But most important—is there any hope that King Cotton will ever be set free?

Three General Categories

The payment of billions of dollars of Ransom for King Cotton has been going on for nearly 30 years. It is impossible to estimate accurately the total amount which has been paid year after year during that long period. During many of those years the price support programs were cluttered with the problems of the Second World War, and the Recovery and Korean War periods. As a matter of fact there were times during and after war upheavals when King Cotton was almost free—although more by accident than by design (When *support* prices were below *market* prices, King Cotton was relatively free).

King Cotton's Ransom may be broken down into three general categories: (1) Direct costs paid by taxpayers for government price support, acreage allotment and export subsidy programs. (2) Direct costs absorbed by the textile industry. Some economists consider this aspect of the Ransom to be paid by consumers who "pay too much for the cotton goods they buy." Unfortunately for us, this is not wholly true. (3) Immeasurable costs of widespread economic distortions.

The Taxpayers' Portion

Direct government costs are difficult to trace through the published reports of the Department of Agriculture. I have had two tables of figures drawn up to summarize King Cotton's Ransom payments. It has been a struggle to pull these figures together, but I believe that they are approximately correct.

In a report entitled "Summary of Realized Cost of Agricultural Programs Primarily for Stabilization of Farm Prices and Income" a figure of $3.7 billion is given as the total "realized cost" of cotton programs for the period from 1932 through 1960. The cost during fiscal year 1961 was approximately $408 million. These figures do not include interest charges and other administrative and non-allocable costs.

Accordingly, the total taxpayers' share of King Cotton's Ransom to date is over $4 billion.

This figure is so huge and goes back so far that it seems futile to even try to discuss it in any detail. Therefore, in order to bring this monsterous problem into some kind of focus that is within the realm of comprehension, let's look at the last five years only.

In toiling through the Commodity Credit Corp.'s Annual Report for the fiscal year ended June 30, 1961, I picked out these two figures:

Loss on cotton price support program	**$162.6 million**
Cost of cotton export subsidies	**$191.9 million**

From these figures, one might conclude that the total cost to the taxpayers for the past fiscal year was only $354.5 million. However, these figures do not include interest costs and other non-allocable costs, or a reserve of $65 million against future losses. In addition, these figures include only the CCC programs and do not include additional costs incurred in the Acreage Allotment and Foreign Currency programs, which are estimated to be $54 million for fiscal year 1961.

*Abstracted from an address by Mr. Robison before the Textile Salesman's Association, New York City, October 26, 1961.

So last year the taxpayers' share of King Cotton Ransom was approximately $400 million.

During 1960, the taxpayers' costs were much higher, amounting to over $500 million—in 1959 nearly $400 million. In 1958 they were $564 million and in 1957 (a big one) they were $641 million.

That portion of King Cotton's Ransom paid by taxpayers in the past five years, then, is something in the neighborhood of $2.5 billion—*an average of $500 million per year!*

That is a tremendous amount of money, but the American taxpayer is so benumbed by fantastic sums that somehow it doesn't seem to strike home as it should.

The Textile Industry's Portion

If that figure does not impress you, then I will bring the whole problem closer to home. Let's talk about the second category of King Cotton's Ransom—that portion collected from American textile mills.

During the five-year period 1956-61 a total of about $1.3 billion was collected from American cotton mills through the purchase of raw cotton at controlled prices in excess of world prices—*an average of about $250 million per year!*

Now, I hasten to point out that we in the textile industry tried our level best to pass this $1.3 billion portion of the Ransom on to our customers. However, we just could not do it, for the simple reason that the customer would not pay it. As we all know to our sorrow, the general index of cotton goods prices is now 97% of what it was in 1947. Cotton textiles will remain the biggest bargain available to American consumers.

Who, then, has paid this portion of King Cotton's Ransom? Something had to give—somebody had to pay. Let's give the consumers some sympathy because I have no doubt that if we had bought our cotton at world prices it would have meant somewhat lower prices for finished cotton goods. However, I submit that the major portion of this second category of King Cotton's Ransom has been paid primarily by textile mill stockholders and employees.

General Effects

The effect on the U. S. textile industry of paying, and largely absorbing, this portion of King Cotton's Ransom has been absolutely devastating. The U. S. textile industry is a sick industry, with a host of complicated and difficult problems.

- From 1947 to 1961 industrial production in the U. S. increased by 50% while textile production declined by 2%.
- During the same period textile employment decreased from 1,325,000 to about 940,000.
- Textile wage rates are below other manufacturing industries, amounting to about 70% of the average for all manufacturing industries.
- Profits on textile mill products are among the lowest of all major industries in the country, currently running around 2% of sales and 4% on stockholders' equity—less than half of the average for all manufacturing industries.
- With very few exceptions, textile mill securities sell at substantial discounts from their book values.

Other economic distortions created by the high artificial support price program on raw cotton are equally disturbing.

Latest Demands

Where are we now? Where do we stand on King Cotton's Ransom now?

The situation is bad—very bad—and it looks like it will get worse if someone doesn't raise a big fuss about it. We are now well into the new crop year and are just beginning to receive cotton from the 1961 crop in our mills. In February of this year Secretary of Agriculture Orville Freeman set a new government loan price of 33.04 cents per pound on Middling inch cotton. This means that every cotton farmer can take his cotton to the government, which will loan him 33.04 cents a pound for his cotton on a non-recourse note which the farmer need never repay. If the market price of cotton should go above 33.04 cents per pound between now and August 1, 1962, the farmer has the right to go to the government and redeem the cotton and, after payment of interest charges, he may resell it in the open market and pocket the difference.

If the market price does not move above 33.04 cents, the farmer leaves his cotton with the government, which takes possession of it and the taxpayers can whistle for the repayment of their loan—which is cancelled.

This new support price means that most American textile mills pay five cents per pound more for cotton this year than was paid last year under the complicated A and B programs, which I will not go into here.

It is estimated that this year's crop will be about 14.2 million bales. In order to move part of this cotton into world markets the Secretary of Agriculture has set an export subsidy of 8½ cents per pound, which is applicable to sales of raw cotton to any buyer from any place in the free world—except the U. S.

Let me state this another way. If our cotton buyer goes to Memphis to buy $1\frac{1}{16}$-inch Strict Low Middling cotton—basic print cloth cotton—he must pay 35 cents for this cotton. Any spinner in the world—in France, Italy, England, Hong Kong or Japan—can go to Memphis today and buy that same bale of cotton for 26½ cents a pound.

Isn't that outrageous?

But that isn't all. The foreign mills can turn right around and ship their goods back here and knock our brains out with their low prices.

Now hear this. We can go to Mexico and buy the same type Strict Low Middling $1\frac{1}{16}$-inch cotton (which, incidentally, is much cleaner, much better for spinning and generally superior cotton to the Memphis cotton) at a price of 27 cents per pound. But here's the catch. We cannot bring that bale of raw cotton into this country and spin it in an American mill because there is a 40,000 bale annual quota on imports of raw cotton into this country—mind you—raw cotton. But spun yarn and cotton cloth is coming in by the shipload.

If raw cotton exports reach the estimates of 5.8 million bales this year, the Export Subsidy Program will cost the taxpayers a cool $245 million. That is $42.50 per bale for the 8½ cents per pound cash subsidy paid—to benefit the foreign textile mills, which don't need the help.

Together with the other costs, then, the taxpayers' portion of King Cotton's Ransom for this year will come to around $450 million. Now, the taxpayers probably won't get very excited about this new demand for King Cotton's Ransom. After all, it's only "a half a billion dollars"—more or less—a mere bagatelle lost in the $87.7 billion Federal budget.

$360 Million This Year

Now—what about the U. S. textile industry—the sad state of which Congress has recently become concerned about?—appointing committees right and left—making studies—and all such manifestations of interest. Well, our poor old beat up

U. S. cotton textile industry — staggering along with its tongue hanging out to its knee caps—is going to be hit on the head and told to cough up $360 million for this year's installment on King Cotton's Ransom.

Here's how I arrive at that figure. If U. S. consumption is about 8.5 million bales, that part of the ransom demanded from American textile mills at 8½ cents per pound, or $42.50 per bale, is just about 360 *"megabucks."* This demand is relatively easy to remember—*"U. S. textile industry, get up $1 million per day for King Cotton's Ransom! And don't squawk about it or next year it will be more!"*

If the taxpayers cannot be aroused about their share of this year's demand for King Cotton's Ransom—surely the textile industry ought to be aroused about its share. A demand of $360 million for King Cotton's Ransom is no bagatelle to this industry—it is a staggering death blow.

You can quickly figure your company's share of King Cotton's Ransom for this year by multiplying your annual consumption by $42.50 per bale, the amount of the export subsidy. Make it $40 for easier figuring. (Actually, the true economic cost to your company is probably $50 per bale—but call it $40).

Does this calculation bring the enormity of King Cotton's Ransom closer to home? Now, compare your part of King Cotton's Ransom with your company's profits. Ugh!

Well, I guess the thing to do is to sally forth and call on your customers and ask them if they would be so kind as to pay higher prices for your cotton goods because you have this King Cotton's Ransom thing to cover—and so on and so forth. Please let me know how you make out.

I figure this year's demand for King Cotton's Ransom would cost our company about $3 million if we bought as much cotton this year as last year—which we won't. At the moment I don't see any chance of getting much of it back in higher prices for our cotton goods.

Right now there are rumblings in the trade that some cotton people are going to demand an even higher support price on the 1962 crop than the 1961 level, which is already five cents above 1960 cotton costs. Is there no end to it?

Specific Effects

What do we do if we can't or won't pay this Ransom? As I stated before, we can't pass it on to consumers because they won't pay it. If we can squeak out a profit—which we still can on some cotton goods—we will go ahead and pay it. If not, we will either shut down our mills or run at a loss. In either case the results are tragic.

Indian Head Mills recently announced the closing of its Glendale, S. C., cotton print cloth mill. This mill has made 78 square, 4.05 yard print cloths for the last several years. Last year the cotton for the print cloths woven in that mill cost us about 30 cents per pound. The goods we made from that cotton sold for 19½ cents per yard, or 78 cents per pound. The mill made some profit last year. Today, under the new higher support price that cotton would cost us 35 cents per pound and the goods could be sold at a market price of 17½ to 18 cents per yard, or 72 cents per pound. That is a total "squeeze" of 11 cents per pound on the cloth. We would not absorb the losses. We have closed the mill, sold off the machinery and released the workers.

Meanwhile, mind you, the identical American cotton—for which we are forced to pay 35 cents a pound—can be purchased at 26½ cents per pound by any spinner in the world who has the good sense to buy cotton here but manufacture goods outside of the U. S. At 26½ cents per pound for cotton we could make and sell print cloths and could have kept that mill going—even at current market prices for cloth.

There are people in the U. S. cotton textile industry who will continue to pay the Ransom on behalf of their mills. They will do so because they are willing to keep mills running at a loss or at a very small margin of profit and dissipate their capital by paying excessively high prices for raw cotton, and selling the goods at low prices. But it so happens that Indian Head Mills does not have enough capital to permit any of its stockholders' equity to go down the drain that way.

There are other activities in which we can engage and secure a satisfactory return on our investment and a satisfactory reward for our efforts. We shall try to scramble with imagination and energy to find profitable means to employ our stockholders' capital. It means an increased effort with synthetics, more research and development and more diversification. It might mean importing yarns or cloth, or finished goods to be merchandised in this market. We must and will do anything and everything we possibly can to maintain profitable operations which show a reasonable return for our stockholders. We will not pay King Cotton's Ransom out of our capital.

Now, I am sure that someone who disagrees with my arguments might well use the *ad hominem* rejoinder: "Well, Robison, if the textile business is so lousy, why don't you get out of it? And it would be good riddance at that."

This would be a straightforward question and I have a straightforward answer. The answer is that we are having fun and we are making money. And we think there are greater opportunities ahead, some of them mind you, created by the very distortions inherent in the high cotton support prices. We are trying very hard to cope with things as they are, not as we think they should be. The fact is that our company has grown and prospered during the very period when King Cotton's Ransom demands have been the greatest, but I might point out that we started out as a 100% cotton products company and we are now a widely diversified textile company, and not wholly dependent upon cotton to make profits. Thank goodness.

The Economic Distortions

Now what about some of the economic distortions created by the insistent demands of King Cotton's Ransom?

(1) American cotton has lost its position of leadership in the world cotton trade. In 1933 U. S. and world production were just about equal: 13 million bales produced in the U. S. and 13.8 million bales in the rest of the world. While U. S. production has remained about static for the past 30 years, with a forecast of 14.2 million bales in the new crop year, foreign production has more than doubled to about 30 million bales per year.

(2) The quality of American cotton fiber is not as good as it should or could be. With no market recognition given to farmers who do a better job, because the government stands ready to buy all of their cotton, without regard to its desirability for spinning, there has been a definite deterioration in the spinnability of domestic cotton fibers received at the mills. And American cotton is no longer the preferred cotton in foreign markets.

(3) Consumption of cotton by U. S. mills has declined from 9 million bales in 1940 to about 8.2 million bales in 1960-61, while cotton consumption by foreign mills has increased from 17 to 39 million bales during the same period.

(4) The growth of synthetic fiber production and con-

sumption in this country and all over the world has been tremendous, having increased from less than one million bale equivalents in the U. S. during the Thirties to 6.3 million bale equivalents in 1960. Foreign countries produced 22.1 million bale equivalents during 1960, indicating that synthetic fibers have grown in importance based on their intrinsic merit and that high cotton support prices alone have not been the sole underlying cause. However, artificially high cotton support prices are forcing much of the textile business into synthetics.

(5) Strict acreage controls have prevented cotton production from flowing to those producers who can do the most efficient and economic job in areas best suited for cotton growth.

(6) The textile industry, one of the largest and most important in this country, has been seriously weakened through erosion of capital values, loss of employment, inadequate research and lagging modernization.

It is impossible to calculate the true economic costs of these distortions and imbalances, but they must surely be tremendous. These, then, are some of the effects of King Cotton's Ransom. Yet, as of this moment, there seems to be no evidence that King Cotton will ever be set free.

The Industry's Biggest Problem

Meanwhile, the textile industry's efforts to restrict imports of textile products into this country have met with little sympathy or success. It appears to be the established policy of the U. S. government that imports of yarn, greige goods, finished cloth and garments are good for this country, but that imports of raw cotton are bad. Needless to say, this upside down logic is not very convincing to those of us caught in the squeeze between high artificial support prices for cotton and low prices for cloth. We have to pay a premium of 30% over the world price of cotton—and for an inferior product. And we are expected to compete on an equal footing with foreign made goods sold in our home markets.

It has been stated time and again that the American cotton textile industry is a sick industry. Much has been said about problems of imports, encroachments of other fibers and paper and plastics, poor merchandising, inadequate research, obsolete equipment and many other industry problems. It is my opinion that many of these problems are of our own making and that only within our industry can we find the means to cure many of our ills. But I am also convinced that these are minor problems when compared to the underlying cancerous growth which can kill the cotton textile industry in America —and that cancer is King Cotton's Ransom.

I do not agree that imports are the single most damaging problem facing the textile industry. Imports are very damaging and it is to be hoped that present efforts will result in some method of reasonable control. However, the biggest and most important element of cost in cotton textile manufacturing is raw cotton—accounting for 40 to 60% of total costs of production. Therefore, I believe that King Cotton's Ransom payments are much more damaging to the American textile industry than all of its other troubles combined. Elimination of the $360 million Ransom payments demanded of the cotton textile industry this year would go a long way toward solving our problems—including the import problem.

Some Basic Issues

Millions of words have been written and spoken about the cotton problem. The problem has been discussed by so many

(Continued on Page 75)

Saco-Lowell Completely Sold On The DuoCard

NOBODY KNOWS YET WHETHER OR NOT THE PROCESS IS PATENTABLE, OR WHAT A PATENT WOULD COVER

By **HERMAN JONES***
Saco-Lowell Shops
Easley, S. C.

THE impact of the DuoCard has created more interest and excitement I believe than any development in carding and spinning during recent years. Perhaps this is because all management personnel have for years felt that improved carding was a vital necessity regardless of the quality of yarn being produced and yet there has been no complete re-design of the card on a practical and economic basis. Some machinery companies, including my own, have spent large sums of money developing a new card but, insofar as going into production and selling these cards, it boils down to the simple fact of how much a replacement program costs and how much this replacement program would be worth to a mill in dollars saved.

We have had numerous developments in component assemblies, such as: metallic clothing, cross rolls, peeler rolls, anti-friction comber boxes and large coilers. Each of these appears to have significant value but on an overall basis, the production rate can be increased to a relatively small degree while maintaining the same quality.

The DuoCard was invented by Otis Alston and developed by Otis and his associates at Swift Spinning Mills. Perhaps many of you have visited Swift and have seen the several versions of the DuoCard in operation. Swift has found, and I am sure you will find, that with the many different variables existing throughout the industry, it might become advisable to adjust production rates and speeds according to the type of stock being produced and the quality requirements of the end product.

Ideas Legally Recorded

When Otis presented his ideas to officials at Swift several years ago, he convinced them of the possibilities entailed in such a development and they gave him the green light to experiment in the mill. At that time, they had him to record his ideas in a legal manner in case they developed to the point they might be become patentable. He then tried many different arrangements and many different combinations of settings and speeds until he found those best for each particular type of stock and yarns.

Swift then set up one card in production running approximately three times the rate of production of a single card. They continued to evaluate the quality of the yarn processed in this manner and found that the yarn proved to have fewer defects, was more even, stronger and, perhaps most important, was of a brighter color. In fact, I am told that they immediately found it necessary to keep this yarn segregated from their regular yarn because of the brighter color.

Their next step was to give it the ultimate test. They sent shipments of this yarn to their most critical customers and asked them to evaluate the yarn without revealing to them the processes involved. From the reports received from their customers, Swift decided to proceed with additional DuoCards.

The results then and now continue to substantiate their first tests and the mill now has a total of 68 DuoCards in operation. Some have transfer cylinders of the same size, and some have the transfer cylinders running at identical speeds while others have transfer cylinders running at different speeds. Some have transfer cylinders of different diameters such as from doffer-to-lickerin.

The advantages of the DuoCard can be many. Of course, we consider most important the higher quality yarn that can be produced. We find that higher quality, brighter yarn is produced even though there is a reduction in the amount of waste removed.

Because of the 3-to-1 production rate that has more or less become standard, we find that a considerable saving in floor space can be accomplished in producing the same poundage. Of course, some mills will utilize the ability to produce at this high rate to increase their overall production.

Is It Patentable?

Since the first announcement of the DuoCard and of the licensing arrangement between Swift Spinning Mills and Saco-Lowell, there have been numerous questions raised in regard to the patent application and the license agreement which has been presented to our customers.

Insofar as the patent application is concerned, Swift's legal staff suggested the mill call in regular patent attorneys to first make a search to determine, if possible, if there was evidence of prior practice. While this was going on, Swift then revealed the development to Saco-Lowell. Saco-Lowell patent attorneys consulted with Swift's patent attorneys and between them they made an exhaustive search for prior practice. The patent application was then entered.

No Patent Details

Perhaps there are some who do not realize that when a patent application is made, the details and the scope of the patent application are not made public until such patent is granted. Because of this, it is impossible for anyone to know what is covered by the patent application, and they can not be sure of any particular arrangement not infringing upon the patent, if and when it is granted.

There are many who have expressed belief that such an arrangement cannot be patented. Here again, it is purely guess work in trying to determine how a government agency will rule upon something of this kind, especially when we, who

*From an address before the Fall meeting of the Piedmont Division of the Southern Textile Association. The meeting, hosted by Highland Park Mfg. Co., was held November 9 in Charlotte.

H. P. Talbert, Jr., Overseer of Spinning at Boger and Crawford Spinning Mills, Lincolnton, North Carolina, checks yarn quality with Wayne Downs, Armstrong representative. Accotex NC-727 roll covers are used on both the front and back rolls of this spinning frame. It is also equipped with NO-7075 aprons.

Your Armstrong man can help you get higher production, better yarn

Here's a combination you can count on to help you turn out yarn that's strong, smooth, uniform: your Armstrong man, and the wide range of materials available in the Accotex line of cots and aprons.

To keep yarn quality high, hundreds of mill men have standardized on Accotex products. These men know that Accotex materials offer the superior fiber control and smooth drafting action that mean high-quality yarn.

These men also know they can count on their Armstrong man for dependable suggestions on roll covering and apron problems. At Boger and Crawford Spinning Mills, for example, the Armstrong man is Wayne Downs, shown here working with mill personnel.

Be sure to call *your* Armstrong man on any roll covering or apron problem. Armstrong Cork Company, 6412 Davis Ave., Lancaster, Pennsylvania.

W. H. Martin, Overseer of Carding, and Wayne Downs inspect a roving frame, which has Accotex NC-727 roll covers on all four lines.

In the roll shop, Wayne chats with Noel C. Weaver, Foreman, about the importance of good roll maintenance.

J. L. Wright (at right), Superintendent, and D. C. Rudisill (left), Asst. Superintendent, learn about a new Accotex apron from Wayne Downs.

Armstrong

ACCOTEX COTS AND APRONS

are doing the guessing, do not know what is covered by the patent application in the first place.

There have been many questions asked insofar as the license agreement that Saco-Lowell is prepared to make with those mills who wish to go into the practice of DuoCarding. On the basis that the patent has *not* been granted, there can be no effort to force any person or company using the DuoCard to sign such an agreement.

However, by signing such an agreement, paying the fees involved, the mill has the privilege of using DuoCards and is insured against any additional fees or charges when and if the patent is granted. Entering into such an agreement also obligates Saco-Lowell to furnish such technical information to the mill that is necessary to practice the DuoCarding to achieve best results.

One pertinent question that has arisen in regard to the license agreement is whether or not the license fees will be refunded to the mills in case the patent application is turned down beyond appeal. Inasmuch as paying this license fee is merely in the form of insurance against further indemnification, it is treated like the premium on a fire insurance policy—whereby the company does not refund the premium when your house does not burn down before the end of the year.

We certainly urge each of you to fully investigate the values of DuoCard as regards to your own mills.

Second, we urge you to either enter into the license agreement or consider the liabilities that might be involved in possible patent infringement. We suggest that anyone not familiar with legal aspects of such matters get legal advice as to whether or not you should enter into the license agreement.

Third, regardless of the patent situation, the license agreement, arguments, etc., we are completely sold upon DuoCards as a method of improving the quality of your finished product.

350 Attend S.T.A. Discussion On The DuoCard

OTIS ALSTON, WHO DEVELOPED THE DUOCARD, RELATES HIS EXPERIENCES WITH DOUBLE CARDING ARRANGEMENT

Moderator: Mr. Alston, on the double carding method, what speed should the doffer on the breaker card be run and what speed should the doffer on the transfer card be run?

Mr. Alston: We've run ours from 5 r.p.m. to as high as 200 r.p.m. I think that in each mill there will be some variation in speeds on these, particularly the doffers, depending somewhat on the cotton that you run. I couldn't stand here tonight and tell you which speed would be best for your particular mill. But we have found that this doffer should vary somewhat from long to short staple fibers, in variation in speed.

Moderator: Mr. Orr, on the doffer-lickerin method, what speed should the breaker doffer be run and what speed should the transfer doffer be run?

Mr. Orr: That depends on your cotton. We have run the lickerin as low as 62 and up to 425. We have settled around 200 on the lickerin. Anywhere from 15 to 45 on the doffer.

Moderator: Would anyone from the floor like to elaborate on these two questions?

Mill A: I would like to have a little more specific answer on the first question. He said 5 to 200, maybe he could tie it down a little closer than that.

Moderator: He has run those experiments from 5 to 200.

The Fall meeting of the Piedmont Division of the Southern Textile Association, held November 9 in Charlotte, featured a panel discussion on Swift Spinning Mills' DuoCard and tandem carding in general. The following is a transcript of that discussion.

Mill A: He said 5 to 200, but he gave no indication on a point to start.

Moderator: Mr. Alston, would you like to tell what speed you think is most satisfactory?

Mr. Alston: I couldn't say which speed would give you the most satisfactory speed there. I will say that we've had satisfactory results from some doffers we've run at 24 and we've still had satisfactory results running as high as 100. That depends entirely on your stock. There again you've got to go back to each individual mill.

Mill A: What is the basis for those speeds? Slow speed for long staple or fast speed for long staple or vice-versa?

Mr. Alston: Well, there again, we've run into some cotton that had quite a bit of mineral oil in it and even though the staple was fairly long, we had to vary our speeds to offset this particular oil in the stock. That's a rather difficult question for me to answer exactly, but I can say that generally your short staple fibers would take your slow speed.

Moderator: All of us are interested in how many pounds per hour this card should produce. Mr. Jones, is three times the normal production on one card considered as standard for DuoCard?

Mr. Jones: I've checked several mills on this and that seems to be a good rule of thumb to start with. But I believe that most of you who have experimented at different speeds and different production rates have found that the DuoCard, like the standard card, probably down to a certain point produces a better quality at a little slower rate. But the three-to-one ratio seems to give a higher quality than individual cards.

Moderator: Mr. Barnard, I have noticed that the front section of cards would load occasionally. Is there a remedy for preventing the front section from loading?

Mr. Barnard: This card isn't any different than the one we've been running through the years as far as the loading

More than 350 S.T.A. members and guests attended the Fall meeting of the S.T.A.'s Piedmont Division November 9 at Charlotte.

problem is concerned. You just take the same steps you would on a single card.

Moderator: Mr. Alston, what type of clothing do you consider best for the lickerin?

Mr. Alston: We use the regular wire. We call it HC-40. Actually we have some special wire on lickerins. We have HS-54, which is much finer and we have run both kinds of lickerins. I wouldn't be prepared to say how much better this finer wire is but we have found that it does improve it some.

Moderator: What type of stop motion has been used on the front card?

Mr. Jones: There are several different types of stop motions on the market. Swift has developed one. The stop motion is most important on a card when you get up past a certain speed. We recommend that you investigate them all and analyze them but do get some type of stop motion.

Nep Counting

Moderator: I agree with Herman, because if you don't stop, you've got an awful mess. Mr. Barnard, how are the neps counted? What method do you use to count neps on the front of the card?

Mr. Barnard: We at the School of Textiles have developed a template that has 20 round holes. We take five of those and that gives us 100 square inches. We find that each mill has to determine for itself what a nep is. I can't get anyone to agree what a nep is to be. So I think that each mill can check the single card and then it can determine what the number is on the DuoCard.

Moderator: Does anyone want to comment on this from the floor?

Mill B: Joe, this card is running so fast that you're getting more mass on the board than when the card was running 6 or 7 pounds an hour. If you count your neps that way, you're going to have more neps. Now some people count them by grains per sliver. Do you count them still using the board?

Moderator: This card is running so fast that I can't see the neps coming through it. But we put it in the cloth and also into knitted goods and then we can see the nep count. You would have to compare with what your regular stock was before and determine whether your nep count was up or down.

Mr. Barnard: Nep counting itself is just a method of keeping the card grinder on the ball. The criteria is to see what the yarn looks like.

Mill C: Do you find that the neps stand out more on the outside of the yarn on the DuoCard?

Mr. Alston: On a better grade of stock, we have found that we have materially reduced the number of neps. Also the size of the neps is materially reduced. On our lower grades at very high speeds, we found that we did not reduce the total number of neps but the nep was very small.

Mill C: Does this nep show up on the surface of the yarn more on the DuoCard than with a single card?

Mr. Alston: No. It doesn't.

Mill D: You said that the neps were reduced in size and smaller in number, would you care to give the production rates you were running the single card and the DuoCard that you compared it with?

Mr. Alston: Our tests were made at seven pounds per hour on the single card and 23 pounds on the DuoCard. We have reduced our neps as high as 60%, which sounds fantastic, but I think the other mills can bear us out.

Mill E: What grade and staple of cotton do you use?

Mr. Alston: One inch Middling.

Mill E: Is that carded or combed yarn?

Mr. Alston: That particular stock was a carded yarn.

Flexible Flats

Mill F: I wonder if anyone has tried flexible flats on the DuoCard and if so what effect did that have on the nep count?

Mr. Barnard: In my visits to various mills, I've run into several different combinations. I think that if you're getting a good job with the flats you already have, then it's assumed that you can get a good job on these other flats.

Moderator: I might add one point there, according to my observations. The metallic wire flat, which is the flat that we consider a no-grind, permanent flat and is supposed to stay sharp, it appears to me that it's taking out less trash content than a conventional wire flat. In the few tests that we've made so far, the tandem card, it would seem to me, would do a better job with metallic wire on the back card and conventional wire on the front. Mr. Alston, would you like to comment on that?

Mr. Alston: We have ten sets of the type wiring that you're talking about on the flats. We think that it definitely takes out less flat strips and at the same time does do as equally as good work. When you get your card production up to 30 pounds an hour and higher, I think that this wire that you're talking about on these special flats, I believe, might have less flex to it than the standard one. Now going back to metallic clothing, I call it plucking. Now that might not be the right word, but if you pluck a chicken, you pull the feathers off it. I've never seen metallic card clothing in my life that didn't pluck flat strips from the flats. You can stand in front of the card

and watch it. There are certain types of flats that will pluck more than others. If you will stand in front of a metallic card and watch, you'll see little specks come through. You can overcome this by adjusting your settings, but sometimes it's rather hard on some type flats. We've had good results so far with the ten sets of special flats that we have.

Moderator: Mr. Jones what happens to the spinning ends-down when the DuoCard is used?

Mr. Jones: Of course, all my information is hearsay, but Swift probably has the largest installation of these cards. They report up to 20% reduction in ends-down. That is the only report that I've had regarding ends-down. I think that you would have to have a number of these cards in operation before you could reach any conclusion on that.

Card Draft

Moderator: Mr. Barnard, what is the best draft distribution within the DuoCard?

Mr. Barnard: If you're speaking of what's fed in and what's delivered, I can give you some idea of that. If you're still using the same lap weight and using the same grains per yard sliver, your total draft hasn't changed. When you get to the distribution, it's a matter of surface speed and I don't think any of us has decided what those are to be at the present time.

Moderator: I think you will find that your total draft in the card is the same as it was before, according to the way you have it geared up. Actually your stock is building up in the first card maybe five times. Is that the way you interpret it, Mr. Alston? And you're accumulating stock and bringing it through? Or can you actually figure the draft on the back card and the draft on the front card and determine what percent of drafting you're doing on the back card against what you're doing on the front?

Mr. Alston: The DuoCard has the same total draft as the single card. We have not changed any of our draft gears. But by feed, I assume you mean feeding it lighter into the second card than normally. There again you would have some drafting between your doffers and between your first card and your second one.

Lickerin Speed

Moderator: Mr. Alston, why is Swift running a back lickerin speed of 600 r.p.m. instead of the conventional 450 r.p.m.?

Mr. Alston: We have run 600 and over on our lickerin. This is nothing that we can assume any credit for. North Carolina State College made this study six or seven years ago. And we have applied them for some time. We're running 600 to 800 r.p.m. lickerin speed. We'd like to put the feed on the cylinder from the lickerin as light as possible. We feel that we get better distribution and that we also give the card a better chance to card.

Mill G: Does lessening or increasing the speed of the lickerin cause the cylinder to load?

Mr. Alston: No. We've run from 400 to 800 and we found no reason for the cylinder to load unless something else might be wrong.

Mr. Barnard: This goes back to the theory about higher lickerin speeds. If you run your lickerin fast, you're putting fewer fibers at a time on the cylinder and this is one of the reasons I think the DuoCard does such a good job in the first card. You've got it broken down into individual fibers so that it handles it better.

Moderator: Mr. Orr, what special maintenance problems do you have on your double card?

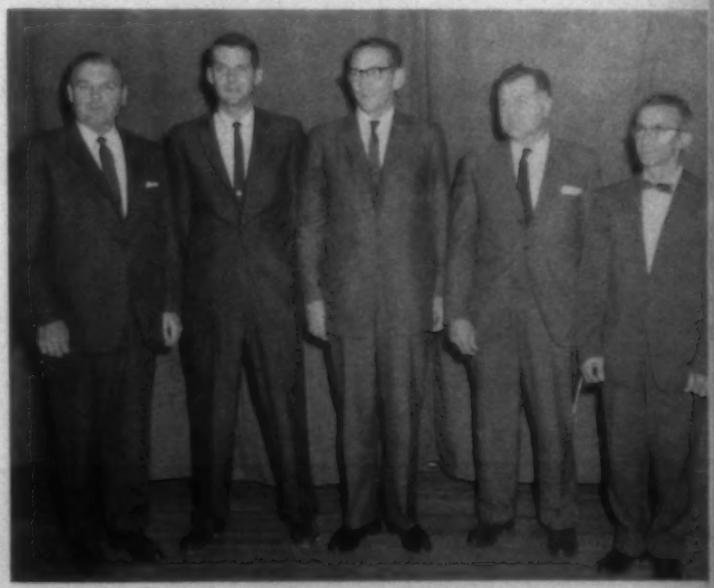
Mr. Orr: We have H&B cards hooked together and we do have maintenance problems. It has been our experience that we have to set our cards twice as often as on the single card.

Mr. Alston: We have 68 DuoCards running and have not experienced difficulty since we put knock-offs on the front of our cards. Of course if you run a card 20 pounds or 30 pounds an hour, you are asking for trouble. We have not had any trouble. I do think this: if you change to DuoCard, I would strongly recommend that after you change a card, you go back and change every setting on it. Once that card settles, your points will not change. But I think some mills make the mistake of not going back and resetting these cards quick enough. That could cause you some trouble. We're using the same personnel that we had before we changed. Actually, we don't have as much trouble keeping our cards up now as when we had the indivdual cards.

Quality Control

Moderator: Mr. Barnard, what special quality control problems do DuoCards present?

Mr. Barnard: I don't know what you mean by "quality control." But I have run into mills that think you can hook these cards together and forget about them. But you can't do it. It takes quite a systematic method of following up on them. One of the big problems that we've run up on is loading. Some people try to get their doffers too close to each other and too close to the cylinder. Actually, they were packing the stock in as much as taking it off.



Jones, Orr, Wright, Alston, Barnard

Panel members for the Piedmont Division's open discussion on the DuoCard included Herman Jones, Saco-Lowell Shops, Easley, S. C.; Albert S. Orr, Union Mills Co., Monroe, N. C.; Otis B. Alston, Swift Spinning Mills, Columbus, Ga.; and Ralph Barnard, North Carolina State College. J. L. Wright of Johnston Mills Co., Charlotte, vice-chairman of the Piedmont Division, served as moderator.

Moderator: Has anyone had trouble with comb boxes at these high speeds?

Mr. Alston: Our standard comb boxes run approximately 1,400 r.p.m. We've been running our DuoCard boxes at 2,000 r.p.m. for approximately a year and we have not experienced any difficulty at that speed. I don't believe you can run a standard comb box at 2,000 r.p.m. for any length of time without modifying it somewhat.

Long Staple Deterioration

Mill H: At 27 pounds per hour carding long staple cotton, have you noticed any deterioration in strength?

Moderator: What do you mean? Egyptian? S-1, Pima or what?

Mill H: One and five-thirty-seconds cotton. A mike of 3.5.

Mr. Alston: I didn't know they made cotton that long. We have been keeping daily records on our breaking strengths both on filling and warp yarns. On an inch and a sixteenth cotton we have not experienced any difficulty. Our average has been approximately 3% better on breaking strength over the past few months.

Mill H: What strength did you get on your 40s?

Mr. Alston: We don't run it that fine.

Mill H: 30s?

Mr. Alston: Approximately 74 pounds.

Moderator: I'll ask the question right back at you. Have you found that your strength in an inch and five-thirty-seconds deteriorates with tandem cards?

Mill H: Approximately 100 points in breaking strength.

Moderator: On your fine micronaire counts, did you find that your neps increased?

Mill H: Yes. Some.

Moderator: That's my experience.

Mr. Alston: May I comment a bit on that? I think you might be able to overcome some of your breaking strength loss by your card settings. Your feed plate settings are most important of all when it comes to breaking strength of your yarns. There again, you are crowding more in your feed plate. And we've found that we had to make additional adjustments to offset that. We haven't had any difficulty at all with ours.

Mill I: Have you noticed any additional dulling of your wire at 27 pounds an hour?

Mr. Alston: We have been running a number of cards at 30 pounds an hour for approximately a year. Our quality is still up on these as compared with the day we started.

Mill I: Have you found it necessary to grind your cards?

Mr. Alston: We have not ground the cards.

Mill I: Has that wire been buffed?

Mr. Alston: It has not been buffed or stripped in a year.

Type Comb Used

Mill J: What type comb do you use at 30 pounds an hour?

Mr. Alston: We use an oscillating comb. It has a curved top to it. We run the comb box at 2,000 r.p.m.

Mill J: How about the teeth? Is it a fine or coarse tooth?

Mr. Alston: I believe the teeth are slightly finer than they are on the standard comb.

Mill K: Have you run any of the sliver through one-process drawing?

Mr. Alston: We have not. Actually, I don't think a card parallels fibers enough, regardless of how many times you run it through, to offset or do away with one process of drawing. I could be wrong, but you do not parallel your fibers in a card like you do in drawing. Since we are strictly a yarn mill, we have not tried it.

Roll Settings

Mill L: Have you changed roll settings in the later processes after cards?

Mr. Alston: No, we haven't. We ran one particular stock through the mill single card that we had to keep separate from the DuoCard. We ran the same roll settings on the drawing, both side by side and did not change any roll settings.

Mill M: Would you elaborate on the changes you made in feed plate settings, Mr. Alston?

Mr. Alston: I couldn't tell you exactly what you should set your card to. But surely if you're doing seven pounds an hour and change to 20 pounds per hour, it's natural that you're going to have to open up your settings more. What that would be for your mill, I wouldn't know. But we did open ours some.

Mill N: Does that hold true all through the card that you would open your settings?

Mr. Alston: No. Actually we're set closer than a normal card most all the way through.

Mill O: What size can could you use and what type drive could be used on the DuoCard?

Mr. Alston: We only have 14-inch cans in our mill because we've been pushed for space. But now we're going to put in the largest cans we can. We do have an individual drive on one card and we're using a standard overhead shaft for the other cards. We just happened

Inscoe, Alston, Etters

Featured guest panelist at the Fall meeting of the S.T.A.'s Piedmont Division was Otis B. Alston, general superintendent of Swift Spinning Mills, Columbus, Ga., inventor of Swift's DuoCard carding process. He is shown here with J. W. Inscoe of Carolina Mills, Maiden, N. C., chairman of the Piedmont Division, and W. B. Etters of Reeves Brothers Inc., Spartanburg, president of the S.T.A.

to have them and we tried to save a little money on changeovers.

Mill P: Do you find it necessary to change your lap preparation to use the lap on the DuoCard?

Mr. Alston: We have a 13½-ounce lap weighing approximately 60 pounds. We have not made any change in our picker room and are still using the same ounce lap that we did to begin with.

Card Waste

Mill J: Will one of the members of the panel like to comment on the amount of waste, the quality of the waste and the waste after processing on the card?

Mr. Alston: We have materially reduced the amount of waste on our cards. There is a theory that every time you go up on the speed of your cards, the waste will come down some. The first flat strips are pretty rough. Then in your second card the flat strips are almost white. They are very bright with very little trash in them. We have not tried to take out any more than normally under our lickerin. I would say if you go from 7 pounds to 20 pounds on your card you would go up some under your lickerin but not in proportion to the increase in speed. Under our two doffers there is a certain amount of leaf and trash and very short fibers. Overall our waste, say on our one-inch Middling stock, is down.

Moderator: We would have to know what it was to begin with to determine what we were doing. In checking the waste content on one of our tandem cards, we found we had 2.40% waste. That was total waste from the card. We were putting too much waste in the yarn and we have increased that some since. I think that most of us would say that the normal waste in the card would be nearer 5% than it would 2.5%. Is that pretty well in line with your experience, Otis?

Mr. Alston: I believe that all of our tests showed we were taking out about 3.85% on our single cards. That was reduced to 2.55% on the DuoCard.

Moderator: Do you benefit with a Crosrol on a DuoCard? Otis, have you had any experience with the Crosrol?

Mr. Alston: We're running three Crosrols at 20 pounds an hour. So far they've shown very good results. We've been running extensive tests on them. I don't think they are conclusive enough tests for us to say just how much good they are doing.

Mill J: Mr. Alston, which do you consider best, the doffer to doffer transfer or the doffer to lickerin transfer?

Mr. Alston: I guess we've tried just about every type of transfer there is. We have definitely settled on the doffer to doffer. We find that our neps have been 18% less on the doffer to doffer than on the doffer to lickerin. On our better grades, we definitely stick to the two doffers.

Mill P: Would you comment on synthetics?

Mr. Alston: The only only synthetics we have run on this DuoCard is Acrilan. We've run Acrilan at 20 pounds an hour pretty good.

Mill Q: We have one card running and we're running our comb at 2,000 r.p.m. and I've noticed while standing in front of that card that we have a lot more fly. I wondered if someone would comment on that.

Moderator: Do you have a screen under your doffer?

Mill Q: Not under the doffer.

Moderator: Under the middle?

Mill Q: Yes.

Mr. Alston: We haven't experienced that. You probably have an air problem somewhere there with air coming out the front. We have had that experience when putting certain types of screens under the doffer with all your air blowing out the front.

Moderator: Is it best to stay with conventional settings on the DuoCard or to alter these settings some? Mr. Alston has already answered some of that question a while ago when he said that he did change his settings on the DuoCard. Are the doffers and cylinder stripped periodically? I think he's already answered that question. He said he hadn't stripped in a year. Is that right, Otis?

Mr. Alston: We have not stripped except in extreme cases where water, oil or some other substance has gotten on our cylinder. We knew when we set these cards up that it would be a problem getting a stripping roll between these cards, so the only stripping we do is with a hand brush or hand comb that we use on the front doffer to knock fuzz off it. We do that about once a week. Sometimes twice a week. It's a little hand instrument. You can make it yourself and you can strip about four cards by the time you can one with a roll.

Lap Weight

Moderator: Is the same weight lap used on the Duocard that was on the conventional card and what happens if you heavy your sliver on the front card?

Mr. Barnard: I've been to some mills who have experimented with this and they've had laps running up to double the weight of the conventional lap. One mill which had run a 14.5-ounce lap ran one 29 ounces and it ran just as well as the 14.5-ounce lap. We did not see any deterioration in the sliver. The same card produced a 100-grain sliver.

Moderator: When you heavied the weight of the sliver delivered, what effect did it have on combing?

Mr. Barnard: It didn't have any effect at all as long as you kept the processes before combing.

Mill J: When you ran the 100-grain sliver, did you experience any difficulty in putting the mass through the back drawing?

Mr. Barnard: You can't put eight ends up if that's what you're thinking about. You have to cut it down to four.

Mill R: Has flexible clothing on the finisher card been entirely ruled out?

Mr. Alston: There's no question that flexible clothing will work, but to be practical you would have to strip it about at least once an hour. I believe that your waste factor in your strips and quality would make you change to metallic clothing regardless of whether you wanted to or not.

Moderator: It appeared to me that the quality was not as good with flexible clothing.

Mill S: Does anyone have metallic on the breaker and flexible on the finisher?

Moderator: I would answer yes and it didn't appear to be as good as metallic on both front and back cards. However, with regular conventional flat wire, it appear-

(Continued on Page 73)

FROM THE FILES OF T.Q.C.A.

The Problem And The Solution: A Study Of Case Histories — Part Two

DEFECTIVE operation of yarn preparatory equipment can be categorized: (1) basic machinery fault; (2) breakdown of parts; and (3) improper adjustment of a component. The following *before* and *after* correction test results contains one example of each. All concern pickers. No attempt is made to assess the percentage of all defects which can be assigned to each of the categories.

In discussing the test results, the defect will be defined as follows:

Basic Machinery Fault—A fault present even though the machinery is properly set, adjusted and maintained. It is due to error in original machine design or subsequent modification.

Breakdown of Parts—A fault caused by the breakdown of one or more parts through either normal wear or improper maintenance. Adequate preventative maintenance can hold this type fault to a minimum.

Improper Adjustment of a Component—A fault caused by the misuse of a gage, rule, wrench or method. More plainly, somebody goofed. This type of defect is never eliminated, but may be minimized by strenuous training, strict attention to details and tight supervision.

Basic Fault

An example of a basic fault is shown in Fig. 1. The machine is a Saco-Lowell one-process picker with a feeding hopper attached. The picker is equipped with a blending reserve and is making a 15.5 ounce per yard lap. The stock used is a blend of California and Memphis $1\frac{1}{16}$-inch staple.

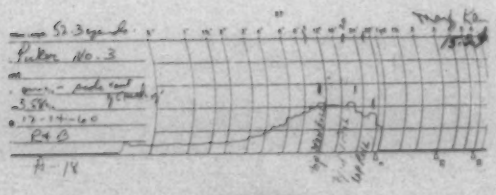
The *before* evenness chart shows clearly the problem is that of thin places occurring every 85-95 inches of lap. For emphasis, arrows have been drawn on the chart pointing to the thin places.

This defect is unique in that there are no thick places corresponding to the thin places. In itself, this fact tips off the cause of the problem. Defects caused by rolls or gears practically always have thick places followed by thin places (or vice versa). Since this defect consists of thin places only, it is obvious that the cause is more subtle than merely a broken gear tooth, bad roll or something of that nature.

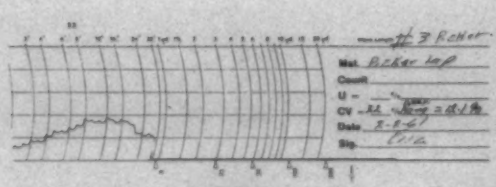
The distance of 85-95 inches between thin places corresponds approximately to the number of inches delivered per revolution of the finisher screen. Inspection of the finisher screen section revealed wide seams ($1\frac{1}{2}$ inches). This wide seam caused the thin place since no cotton could collect on it. A corresponding thick place was not formed since the stock distributed itself more or less uniformly in the area near the seam.

To eliminate the defect holes about the size of screen perforations were drilled into the seam. These holes allow passage of air through the seam area and, thus, eliminate the thin place. The *after* chart shows how completely the thin places

Fig. 1



BEFORE



AFTER

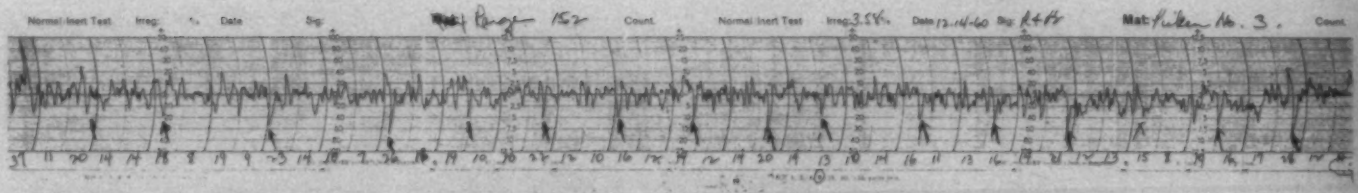


Chart No. 1 BEFORE—15.2% M.V. or 3.6% C.V. with cyclical defect.

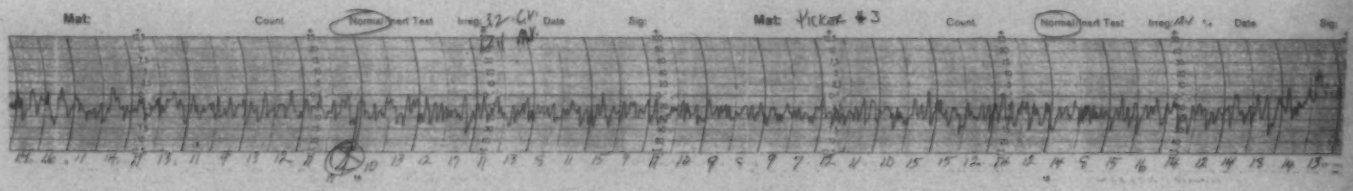
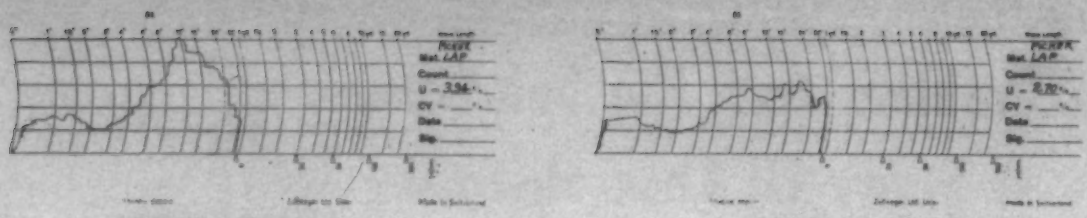


Chart No. 2 AFTER—12.1% M.V. or 3.2% C.V. with cyclical defect gone.



BEFORE—3.94% U **AFTER—2.70% U**

Fig. 2

are eliminated. Maximum variation was reduced from 15.2% to 12.1%.

Problem No. 2

Fig. 2 is an example of a picker defect caused by a breakdown of parts. The picker is a one-process model. Other specifications are immaterial because of the nature of the problem.

The *before* chart in Fig. 2 shows a large build-up occurring every 12-16 inches of lap tested. The peak is at 12 inches on the Spectrogram.

Stack rolls are the usual cause of defects in this range. And so they were in this particular case. The defect was eliminated by replacing a bottom stack roll that was found to have a loose neck. Variation was reduced from 3.94% to 2.70%.

Problem No. 3

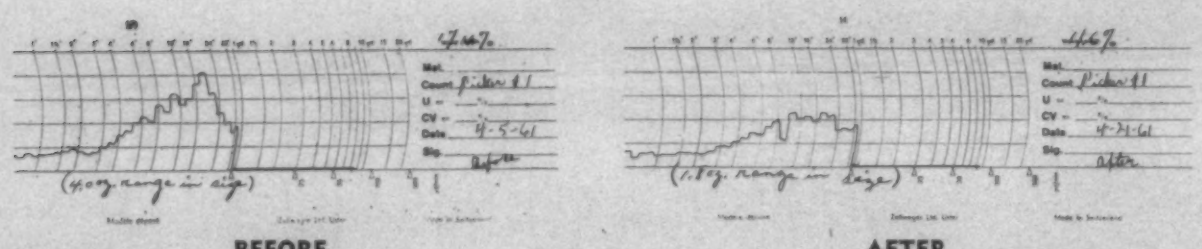
The charts in Fig. 3 are *before* and *after* test results from a one-process, Saco-Lowell (Kitson) 90 Pattern F-4 picker. The picker has a two-blade beater in the back section and a Kirschner beater in the finisher section. It delivers a 16 ounce per yard lap. The stock is 100% $1\frac{1}{16}$-inch staple cotton from California and Memphis.

Much irregularity is shown in the *before* chart. The M.V. is 17.4%, and the build-up is over a wide range. The Spectrogram peaks are not sharp enough to indicate a specific bad part or two. The problem is more general than that.

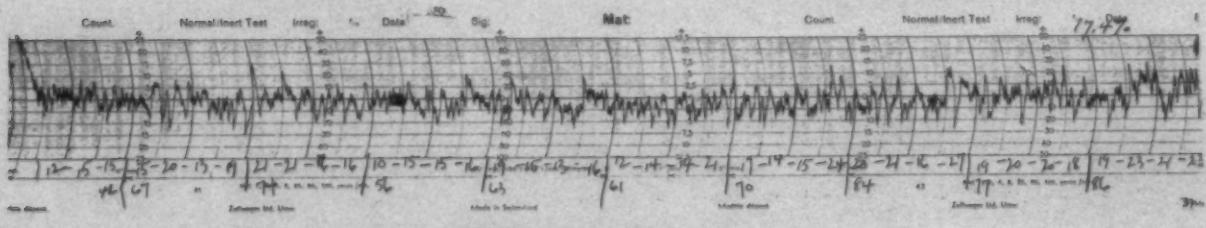
The *after* chart shows the same picker making an 11.6% M.V. lap with a Spectrogram which is practically clean. How was it improved? Two corrective measures were required. Note that in Fig. 3 there is no cycle to the *before* occurrence either in the chart or the Spectrogram. The feed is assumed proper from the fact that the weight per yard of lap is steady throughout.

Since the feed is proper and there are no cyclic defects, the evener motion becomes the logical suspect for the variation. By adjusting the fulcrum on the cross-arm and by shortening the turnbuckle adjusting rod, variation was reduced from 17.4% to 11.6%.

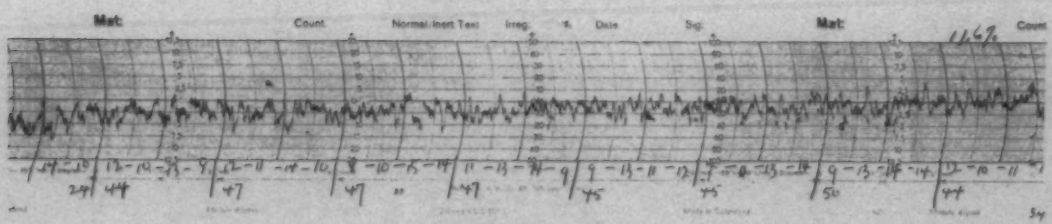
Fig. 3



BEFORE **AFTER**



BEFORE—17.4% M.V.



AFTER—11.6% M.V.

N.N.C.-VA. DIV., SOUTHERN TEXTILE ASSOCIATION

How Do You Control Quality in the Weave Room?

S.T.A. MEMBERS DISCUSS QUALITY CONTROL MEASURES, LOOM CLEANING, PLASTIC SHUTTLES, FILLING JERK-INS

Moderator: Has anybody had experience with the new Draper plastic shuttle with the thinner walls? How does it compare with the Duraweld?

Mill A: I've run a few of them. The Duraweld shuttle and the new Draper plastic shuttle are about the same weight.

Moderator: People who have been in the weave room for years have the feeling that increased weight, such as on shuttles, plastic pickers, straps, etc., is adding to the wear of the loom and giving trouble in that respect. I don't know. I do know that the results at our mill have been good when we have reduced the weight of the shuttle and various other items. Of course, this has to be considered very carefully because there are gains to be made, so far as supply costs are concerned, by using those materials that last longer.

How does a plastic and wood shuttle compare in weight with an all-plastic shuttle?

Mill B: The plastic shuttle is about three ounces heavier than the combination.

Plastic Shuttle Life

Mill C: How long does the plastic shuttle last?

Mill B: We have a Draper Trumold shuttle that has been running for 2½ years.

Moderator: We don't know the actual life of the plastic and wooden shuttles. A year ago we took out the plastic shuttles at our plant—just as fast as we could go. At that time we inserted new shuttles and began overhauling our looms. We were changing styles and were having very little success with quality. So we took the plastic shuttles out and put lighter shuttles in. We're not really in a position to evaluate the life of the lighter shuttle.

Mill C: We haven't lost any shuttle life with the lighter shuttle. We're getting roughly 10,000 hours now.

Mill D: If he's getting 10,000 hours, he'd better stay with what he's got.

Mill E: Does the plastic shuttle make more broken picks?

Moderator: According to our records, we reduced broken picks, mispicks and jerked-in filling pretty drastically after we went to the lighter shuttle. Those things are hard to really evaluate because you might be making improvements had you not lifted that shuttle. Our plant did make pretty significant improvements along those lines.

Mill E: Which is the hardest on the leather, the Duraweld or the Trumold?

Mill F: I think the all-plastic is harder on the pickers and all other parts of the pick motion—stick and all.

Moderator: I think the more weight you throw into that box on each pick the more damage you're going to do.

Mill G: I've run wooden shuttles, the Duraweld and the plastic. I prefer the plastic. But the weight and the leather is a problem.

Mill H: Has anyone had any trouble with bond failure on the Duraweld?

Moderator: Back in the early days, I think everybody had trouble with that bond.

Mill I: In our sheeting mill, we have Duraweld shuttles in all of our looms and I don't know of a single case of bond failure.

Moderator: We have had a few, I don't see many of them now. Back when we first tried that shuttle, we had a good bit of bond failure. I think the manufacturers are doing a much better job now.

Spring Life

Mill J: What is the spring life in the Trumold shuttle?

Mill G: We've had to buy extra springs, they aren't lasting as long. The shuttles are lasting so much longer that they're outlasting the springs. When I ran all-wood shuttles, it was the other way around.

Mill K: I've heard Draper comment on that. They were getting complaints that their springs had started wearing out. They pointed out that the springs were just as good but the shuttles were lasting longer.

Moderator: What is the best way to clean looms? The way we're doing it now just isn't cleaning them. We clean ours about every eight weeks now as the warp runs out.

Mill D: Do you have fewer bad places by not cleaning your looms?

Moderator: That's the reason we don't clean them. We're corduroy manufacturers and we find that any lint blown into the loom and into the woven piece of goods will keep the cloth from cutting and so it's almost essential not to have this blown in waste in corduroy. And I'm sure it's advisable not to have it in any cloth. So we stopped blowing looms in between cycles when we went to corduroy, and we have had very little trouble with it. Of course, the looms are completely covered with lint.

A feature of the Fall meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association was an open discussion on weave room practices. Serving as moderator was Robert Crews of Cone Mills Corp., Greensboro. The meeting was held October 21 at Cooleemee, N. C., with Erwin Mills as host.

Mill L: What do you do about cleaning dropwires and heddles? Do you blow them out in between?

Moderator: We don't. We have a program of going over our harness and redrawing it. About every three years, we will redraw our harness and try to get them all leveled up, etc. But we don't have any definite program as far as cleaning dropwires or heddle eyes. I guess that's about as close to not doing any cleaning as you can get.

Mill C: What do you have, mechanical or electrical dropwires?

Moderator: Electrical.

Jerk-ins

Moderator: Does anyone have any tips on how to stop jerk-ins? I don't know that anybody has ever stopped them completely. I guess that if a loom is set right, you'll stop more jerked-in filling.

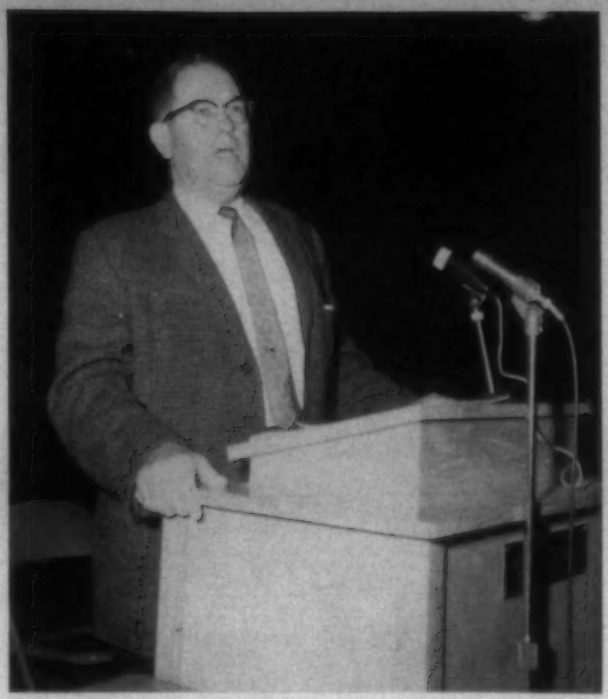
Mill M: I think the problem of jerked-in filling has been magnified. I don't think, honestly, that we have any more jerk-ins now than we ever had. They just show up worse now because they make defects now and it use to not matter. I don't think you could ever fix a Stafford thread cutter so it would catch the tail every time. Too many little things could happen that would make it miss.

Moderator: I agree. And as a matter of fact, I don't think that Draper will guarantee you that a loom set perfectly will catch your filling at every change.

Mill A: We started having a lot of seconds from jerked-in filling and my boss wanted to know why. I told him that it had been there for years but that we just had never noticed it before; that quality control had just said it was a defect a few months ago.

Ward, Cone, Starling, Joslin

Officers for the S.T.A.'s N.N.C.-Va. Division for 1961-62 include A. L. Joslin of Dan River Mills, Danville, Va., chairman; Frank Starling of Cone Mills Corp., Greensboro, vice-chairman; and Charles H. Ward of Highland Cotton Mills, High Point, N. C., secretary. Retiring as chairman after two terms is Herman Cone Jr. of Cone Mills. New executive committee members named at the meeting included Miles A. Carpenter, Erwin Mills, Cooleemee; Max Gainer, Erlanger Mills, Lexington; and Ralph R. Going, Fieldcrest Mills, Draper.



Carl R. Harris of Erwin Mills, a past president of the Southern Textile Association (1928-29), was the principal guest speaker at the Fall meeting of the association's Northern North Carolina-Virginia Division.

Mill N: We accuse the clothroom men of saying that this week will be jerk-in week and next week will be something else. You get a little relief that way—you let up on jerked-in filling next week and start on something else.

Moderator: Well I hate to get that kind of talk going around here. I've gotten used to that myself. We have jerked-in filling week and kinky filling week, broken pick week, etc. It just shows that the standards for quality are getting tougher and tougher.

Quality Control

I would like for us to talk a bit about quality control in weaving. Probably all of us handle the problem a different way and I chose this subject from a defensive standpoint.

As I mentioned, quality standards are getting tougher. Of course, the weave room is dependent quality control-wise on the stock that comes up to the weave room. Some weave room overseers say they wouldn't have any defects if the spinning room didn't make mistakes.

Weave room supervisors have a big problem in stopping broken picks, mispicks, jerked-in filling, thin places, overshots, undershots, threads out and a conglomeration of other defects. I just wonder how you reduce these defects.

Does your weave room supervision know what the problems are? How much of a problem is jerked-in filling? Let's say your weave room is having 10% seconds. How many are you getting from jerked-in filling? Does anybody have a method for determining how much of their quality problem is coming from jerked-in filling?

Mill C: I don't think that you could compare that to the actual percentage of seconds because, unless the jerk-

in is all the way out in the middle of the cloth, it's burled out and not charged as a second. But the defect is there nevertheless. We get a seconds ticket back for our looms from the greige inspection room every two hours. We hang that ticket on the loom for at least eight hours.

Moderator: You say that short jerk-ins are not seconds at your mill?

Mill C: It is a second, but the cloth isn't actually put into seconds.

Moderator: In other words, you consider them as seconds since they will have to be taken out of the cloth?

Mill C: Yes.

Moderator: Do you try to determine how many of your seconds are made from broken picks?

Mill C: We keep a record by defects daily. Every yard inspected in the greige clothroom is broken down by defect. The same defect ticket that comes back to the loom is transferred to the big seconds sheet for the end of the day.

Check Weavers

Moderator: Should we be concerned about our weavers' ability to make first quality cloth? Do we need to know what type errors our weavers are making? Do we need a system that tells us what type errors they are making?

Mill N: Watching your start-ups sometimes help in that.

Moderator: How is that?

Mill N: Watch your weavers when they start up a loom after it stops. For instance, when you have a filling break and they are catching the pick, watch to see that they let back, see if they are pulling the tails out on a broken pick.

Mill D: The misdraws and things of that nature are recorded on our daily sheet. We mark the cloth at shift change too. If the misdraw occurs between those markings, we can track it down to the shift. If it becomes excessive, we track it down to see who put it in and who took it out.

Moderator: By the information available to you, are you able to put your finger on the trouble spot and determine what classification of defect is giving you trouble? Are you able to tell which weaver is having the most defects? What do you do when a weaver says that he can't do any better because he can't get his looms fixed? How can you tell whether the weaver or loomfixer is making the mistakes?

Mill E: We have a board posted in the middle of each fixer's set of looms. It has each loom marked on it with possible reasons for it being flagged. The loom number is marked on this chart each time it's flagged for the fixer. The time is also put on the board by the weaver and the fixer signs the board and marks the time when he finishes with the loom.

Moderator: Under that system, are you holding the weaver responsible for the quality of her cloth? If the trouble is with the loom, do you ask the loomfixer to report back to his supervisor?

Mill E: There's also a place on the board for the headfixer and the supervisor to sign. If the loom is flagged over two times for the same defect, the headfixer has to check the loom and sign the board. If the loom is flagged again for this defect, the supervisor has to inspect the loom and sign the board.

Mill J: Wouldn't marking the cloth serve the same purpose as the board? If the weaver marks the cloth when she flags the loom for the fixer, and it doesn't get fixed, wouldn't it show up in inspection?

Mill E: The only trouble with that is that it would be about four shifts before that roll of cloth would be doffed in our mill. This way we get our answers at the end of the shift.

Moderator: It seems to me that with this system, there is some type permanent record as to which loomfixer is fixing looms and which fixer isn't. I'm certain that the fewer times that a loomfixer has to return to a loom, the more work he's going to get done.

Warp Defects

We inspect a third of our looms for warp defects. Our weavers are assigned to inspect only a third of the looms and they clean reed caps on a third of their looms. If there is a defect on another loom, they are expected to take it out if they see it, but they're not expected to actually look for it.

Mill N: Are your weavers held responsible for every piece of cloth that comes off their looms?

Moderator: They're held responsible for everything other than warp defects. They are held responsible for warp defects only on one-third of their looms. We run

More than 150 S.T.A. members attended the Fall meeting of the group's Northern North Carolina-Virginia Division at Cooleemee, N. C., on October 21st. Seated in the foreground are (*left to right*) J. William Wilson, who welcomed the group to Cooleemee on behalf of host Erwin Mills; Carl R. Harris of Erwin Mills, Durham, featured guest speaker; and Herman Cone Jr., Cone Mills Corp., Greensboro, chairman of the division.

about 15 yards per shift on corduroy and so there is not a big loss if the cloth runs on for a couple of shifts.

You also have a heavier weaver assignment on corduroy. If your weaver inspects his whole section of looms, he wouldn't be able to get around and give them a thorough inspection.

Mill M: What do you include in your warp defects?

Moderator: We include wrong draws, double ends, threads out, big threads, etc. We would certainly not attempt that kind of system on a loom that had, say, a 50-tooth pick gear on it, because there would be too much cloth lost over a shift.

Preventative Maintenance

I would suppose any type weave room quality control problem would be solved best through preventative maintenance. What do you do along the line of preventative maintenance? Do most of you have some type of warp checkout system?

Mill J: We have.

Moderator: What type work do you include on a warp checkout system?

Mill J: It includes practically everything on the loom. It takes a good little while, but if you don't catch it then, you don't have a chance.

Moderator: I guess you practically overhaul that loom on the warp checkout.

Mill J: Anything that might give later trouble, they change right then. The looms are checked very closely with gages, too.

Mill O: We check ours. The man that ties it on signs it; the fixer checks it and signs it; and the second hand checks it and signs it.

Moderator: How long does it take to run your warp out giving the loom that much attention at warp-out?

Mill O: From three to five weeks.

Mill C: How many looms do fixers have in a section running a warp of that type?

Mill O: I've got 110 on two jobs and 102 on 17 jobs.

Mill J: What kind of looms?

Mill O: E's and X's.

Mill J: We have X-2's and XD's. Our X-2's are 79 looms per section.

Mill B: If the warps only lasted two weeks, could you still keep up the program?

Mill J: I think it's necessary to keep it up, not whether we could or not. It might take more help but I think it would be necessary, if you're to make quality.

Mill C: What do you do? Tie the warp in, start it up and then inspect it?

Mill J: Yes.

Mill C: There's not much you can do with it until then, is there?

Mill J: Oh yes. You can check it out with your gages, check the center fork motion, etc.

Mill D: We have a daily check list for our looms so that the fixers shouldn't have too much to do to the loom when a warp comes out. The fixer checks this list every day for his shuttles, his leather, pickers and all that. Naturally when the warp runs out, all that's done Then all he has to do is to check his pick and stroke.

Moderator: How is that work assigned?

Mill D: It's on a third basis. Each fixer has a third of

(Continued on Page 75)

TEXTILE OPERATING EXECUTIVES OF GEORGIA

Slashing Practices Discussed By T.O.E.G.

TOPICS COVERED INCLUDE (1) MULTI-CYLINDER SLASHERS; (2) STATIC ELECTRICITY; (3) STRETCH METERS; (4) SIZE BOXES; (5) SQUEEZE ROLLS; AND (6) QUALITY CONTROL

Multi-Cylinder Slasher

Question No. 1: Have you encountered any trouble with the following on multi-cylinder slashers, and how did you correct? (a) Excessive build-up of moisture in loom beams. (b) Do you find moisture in loom beam at slasher to be the same as at the loom? (c) How important is it to cool the yarn coming off the cylinders before it is run on the beam? What method do you use? (d) What do you consider the proper percent of moisture to leave in warp sized yarn?

Of 13 mills answering, 11 reported no difficulties with moisture build-up in the loom beam. Two said they had trouble at high speeds with coarse yarn numbers. Five mills said they did not find moisture on the beam at slasher to be the same as in the weave room. Five others said they didn't have this problem. And three had no data. Eleven mills use two to four fans to cool yarn coming from the slasher. Some said that the fans definitely helped increase production and others said the fans cooled the warps and prevented later mildewing, sticking, shading and hardening. Others use them to bring the moisture to the surface of the beam and to prevent heat build-up. Two of the mills felt that no cooling was necessary in their cases. Preferred moisture content ranged from a low of 5% to a high of 8% with most of the mills falling in the 6½ to 7½% category.

Static Electricity

Question No. 2: What method do you use to reduce static electricity in yarn on front of slashers?

Seven mills replied. One is equipped with static eliminators. Another covered the delivery roll with cork. A third mill said that it wasn't bothered with the problem but attributed it to over-drying. The remaining four mills reported that they reduced the problem by increasing the moisture content of the delivered yarn to 6 to 7½%.

Size Boxes

Question No. 4: What pressure do you use in your size box?

Seventeen mills responded to this question with some taking it to mean roll pressure and others steam pressure on size lines. One mill had self-weighted rolls which weren't adjustable. Another reported that it used 300 pounds when running corduroy and 500 pounds on osnaburg. A third mill reported using 20 pounds of air pressure applied directly to rolls. A mill running drapery and low count twills reported 150 pounds on front and 100 pounds on the back roller. When running a heavy sley, it raised the front roller pressure to 300 and the back to 200 pounds. Some other pressure answers were 45 pounds; 35 to 50 pounds on a Griffin box; varies according to hardness of squeeze rolls; 25 p.s.i. on box next to creel and 15 on box next to cylinder; 325 pounds to 825 pounds added depending upon construction of finished fabric; and 925 pounds on print cloth—1,175 pounds on wide sheetings. Steam pressures on size boxes included 25 pounds and 18 pounds. One mill reported that it used yarn wound dead weight of 600 pounds per roll. Another reported dead weight squeeze rolls with the front rolls weighing 750 pounds and the back rolls 650. One reported that on old style towel slashers, it did not add any pressure to the squeeze rolls.

Size Boxes

Question No. 5: On double size boxes, do you get the best results using the same pressure on all rolls or a higher pressure on the front rolls?

Four mills reported using the same pressure on both rolls. Another uses different pressures on the rolls. A sixth mill uses a higher pressure on the front box; the rolls within a box, however, have the same pressure.

Squeeze Rolls

Question No. 6: What is the best method for checking the amount of pressure on each end of squeeze rolls?

Seven mills answered this question with one having self-weighted rolls. Another calculated the pressure on a solar diameter and air pressure. A third used an air pressure gage on a Griffin size applicator. One mill reported that it didn't check each side. The use of the carbon paper technique was reported and another mill

A feature of the Fall meeting of the Textile Operating Executives of Georgia was a report of discussions of questions on slashing. The meeting was held October 14 in Georgia Tech's Harrison Hightower Textile Building.

said that it used dead weight squeeze rolls. One mill checks the pressure with an air gage. There's a plug which is removable on the cylinder and a gage is inserted into this plug to obtain a reading.

Stretch

Question No. 7: What percent stretch do you run in 40/1 colored yarn? (a) From size box to nip roll. (b) From back section beam to nip roll. (c) Are section beams wet or dry? (d) Do you use can pre-dryers? (e) Are pre-dryers driven?

Response to this question was poor as only two mills answered. Mill A reported 2% stretch overall with 1% registered between the size box and nip roll. Stretch from the back beam to the nip roll was 2%. Its section beams are dry and the mill uses pre-dryers which are not driven. Mill B reported a .5% stretch from the size box to the nip rolls; 1.9% between the back section beam to the nip rolls; wet section beams; uses pre-dryers; pre-dryers are driven.

Stretch Meters

Question No. 3: If you use stretch meters on your slasher, what percent stretch is maintained?

Eight mills reported using some type of stretch meter on their slashers. Five reported that they didn't. Stretch is running from 1 to 3% among the mills answering with the majority falling in the 1½ to 2% range.

Quality Control

Question No. 8: In pulling over a new set on the slasher in order to have a minimum amount of waste, do you size yarn on pull over, then pick it on front to save that yardage? What method do you use to control waste?

Mill	Pull Over Size Yarn	Pull Over Soft Yarn	Pick In
A	yes	no	yes
B	yes	no	yes
C[1]	sometimes	sometimes	sometimes
D	yes	no	——
E	no	yes	yes
F[2]	yes/no	yes/no	——
G	no	yes	pick/strike
H	no	yes	pick/strike
I	yes	no	yes
J	no	yes	——
K	no	yes	——
L	no	yes	yes
M	no	yes	yes
N	no	yes	——
O[3]	yes/no	yes/no	——
P[4]	yes/no	yes/no	yes/no

[1] Sets dyed dark shades are not sized and pulled over. For fabrics not to be dyed, the yarn is sized.

[2] Pile yarns are sized, pulled over and picked. Ground yarns are not sized.

[3] On towel slashers top warps are sized and picked. Bottom warps and ticking sets with heavier size are pulled soft.

[4] If number of ends in set is not too great, the yarn is sized and pulled over. If it is too high, the yarn is pulled soft and picked.

There were several ways mentioned to control waste at the slasher. One mill minimizes soft waste by keeping the creel beams free running and tries to have an equal number of yards on each beam. No tension is applied to the beam while running. Spring loaded rope drags are rigged so that braking power is applied when the slasher is stopped.

Another mill keeps a daily record of the waste made which shows type of waste, weight and which slasher it came from. One mill answered that it used warper yardage clocks and measuring rolls. It also has positive drive creels. Another said that it saved waste through a formal waste control program. Three other mills reported keeping waste records.

One mill reported that its greatest waste control effort is centered on the problem of section beam run out waste. It listed four suggestions for maintaining equal tension for each beam. (1) Use of washers on the beam journals. (2) The same weight on the tension ropes. (3) Proper alignment of the beams. (4) Constant check for faulty beam journals. In addition, the mill keeps a controlling check of the amount of waste made by weighing and recording the waste made for each slasher on each set.

2-Ply Selvage

Question No. 9: What method do you use to dry 2-ply selvage yarn when running with single yarn body?

Twelve mills answered this question. Six reported that they did not run their 2-ply selvages through the size box. Three of these ran it from creels on the front of the slasher. The other three just bypassed the size box. One mill separates the selvage ends from the body with a comb immediately after it leaves the size box. These yarns are then run "off to the side" to have direct contact with the cans. Multiple-cylinder slashers were used by three mills to dry the selvage just like the body. Another mill used two infrared lights on the front of the slasher to dry the selvage. When the creep button was pushed, the lights automatically went off. One mill reported running the 2-ply selvage under the back squeeze only and didn't pass under the immersion roll. After leaving the back squeeze, the yarn is held above the front roll by a comb and small Teflon-coated roll.

Size Pick-Up

Question No. 10: How much difference do you find in size pick-up from creep to high speed?

Four mills reported no increase in pick-up with two attributing it to solenoid valves in the size box. One mill reported that its pick-up would vary 3 or 4% between full speed and creep. Another had a 3% difference while two mills reported only approximately 1%. One mill knew there was a difference but hadn't established a satisfactory test to determine how much.

Rifle Fire Causes Saco-Lowell Shops $35,000 Damage To Furnace, Equipment

Rifle-fire into a high voltage line cutting off power to its electronically-controlled furnaces has cost Saco-Lowell Shops, Easley, S. C., an estimated $35,000 in damage. The automatic starting of an auxiliary power source prevented further damage and possible serious injury to Saco-Lowell personnel by keeping the furnaces from exploding. The plant had to shut down for one complete shift while repairs were being made.

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How To Design And Set-Up Herringbone Twills

WHAT IS A TRUE HERRINGBONE TWILL? WHAT IS THE LOOM SET-UP FOR WEAVING IT? HERE'S HOW

By E. B. BERRY

THE term "herringbone" is often misunderstood as well as misused. This article will seek to clear up some of the confusion associated with the term. It will also show the weaves and loom set-up to produce herringbone fabrics.

Callaway Textile Dictionary defines "herringbone twill" weaves: "A term rather loosely applied to any twill weave composed of vertical sections which are alternately right-hand and left-hand in direction. More correctly the term should be restricted to certain types of broken twills that stitch or cut perfectly where the weave breaks or changes direction. One of the most popular of all twills and widely used in many types of fabrics, especially suiting and coatings."

The same dictionary defines "broken twill" weaves: "A very useful class of twill weaves in which the twill line runs right-hand for a number of threads and then left-hand for a number of threads. Where the weave reverses, there should be a distinct break in the twill line. Also known as herringbone weaves."

Broken twill cloth: A fabric whose basic weave consists of a broken twill.

In order to get the necessary distinct break in the weave, there must be raisers opposite sinkers as the twill line reverses. This means an even-sided twill (2/2, 3/3, 4/4) may be used as a base. Generally, the break is in the direction of the warp, although broken twills in the filling direction are sometimes seen.

There is no limit or restriction on the number of ends of right twill and the number of ends of left twill that may be used in combination. If the numbers are odd and not the same, as 5 right and 7 left, it will take many ends before a repeat is made.

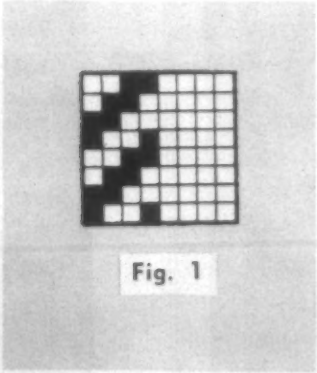


Fig. 1

Let's take a simple herringbone or broken twill as an example. This uses the 2/2 twill as a base and has 4 ends right, and 4 ends left. The start of the weave is seen in Fig. 1, and represents the right-hand twill for four ends.

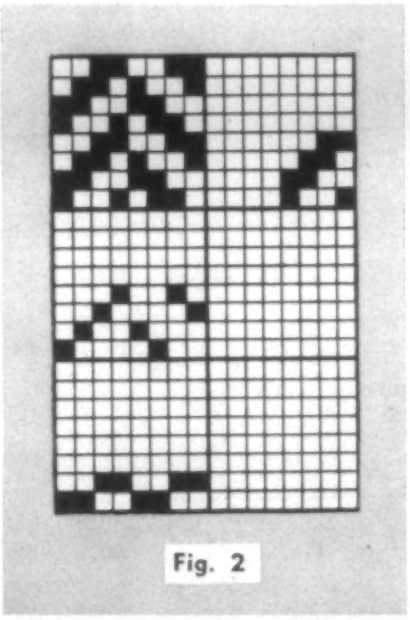


Fig. 2

On the fifth end, raisers are placed opposite sinkers of the fourth end, and sinkers are placed opposite raisers of the fourth end. From there on, the twill is left-hand, for four ends, as seen in Fig. 2.

Is this a repeat? The 9th end will have raisers opposite sinkers of the 8th end. When this is done, the 9th end will be the same as the 1st end, therefore, the weave will repeat. Included in Fig. 2 is the drawing-in-draft, reed plan and cam plan. Note the simple cam plan. It is the regular 2-2 twill, which makes possible the weaving of this fabric on a cam loom. The fancy drawing-in-draft makes possible the reversing of the twill line in the fabric, which is necessary in these herringbone weaves.

When a 2-2 twill is used, it is possible to weave a tape selvage without any additional harness. Fig. 3 shows this addition. The staggered draw makes possible this weave with the straight cam plan.

It is not always possible to have a repeat on so few ends. In the same 2-2 twill, if the customer wanted 6 ends right and 4 ends left, the first 10 ends would appear as in Fig. 4. On end 11, raisers would be opposite sinkers compared with end 10, and this is not the same as end number 1, so is not a repeat.

The entire cycle of six right and four left is then painted, as seen in Fig. 5. End 21 will have raisers opposite sinkers compared with end 20. When this is done, end 21 and end 1 are the same, which means a repeat is obtained on 20 ends.

The base for a broken twill need not be even sided, but should be regular enough to allow for raisers opposite sinkers at the break. An example of this is the 3/3/1/3 twill. Fig. 6

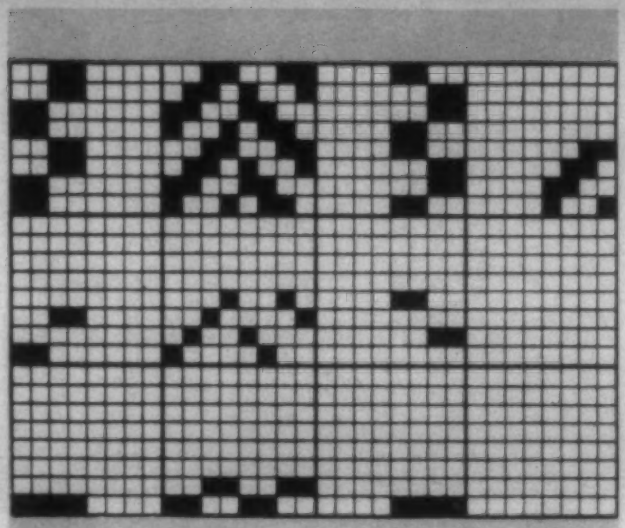


Fig. 3

shows this base weave broken in sections of 10 ends right and 10 ends left.

Some very well known and popular broken twills are the

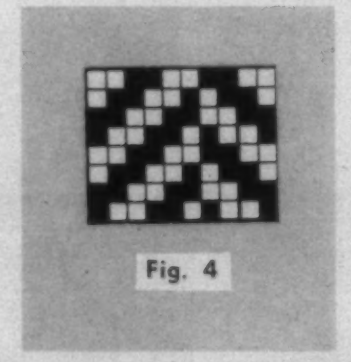


Fig. 4

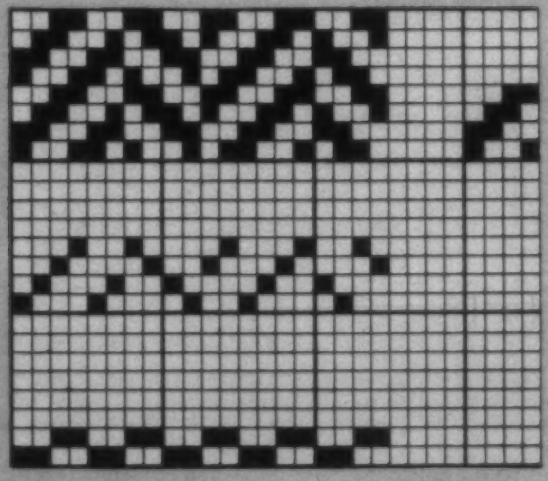


Fig. 5

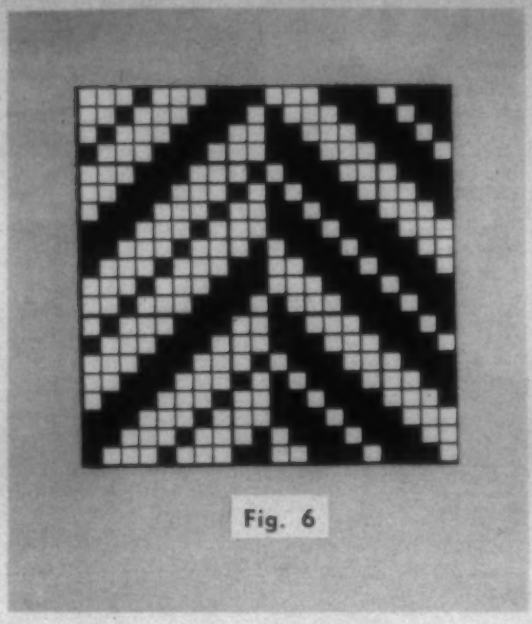


Fig. 6

crowfoot weaves. There is a group of four:

(a) 4-harness filling flush
(b) 4-harness warp flush
(c) 6-harness filling flush
(d) 6-harness warp flush

The 4-harness filling flush crowfoot weave is made up as follows: a repeat of the 1/3 45° right-hand twill is painted, as seen in Fig. 7(a); then a repeat of the 3/1 45° left-hand twill is painted as seen in Fig. 7 (b). The first two ends of the right-hand twill are then combined with the first two ends of the left-hand twill as seen in Fig. 7 (c).

This is not even sided. It is used many places to give a rough, pebbly effect.

The other three crowfoot weaves are made on the same principle.

While most broken twills (herringbone) are broken in the direction of the warp, it is possible to break in the direction of the filling. The same principle applies; that is, the twill line will go right for a given number of picks, then raisers will be put opposite sinkers, and the twill line will go to the left for a given number of picks. Fig. 8 illustrates the 2-2 twill broken in sections of 4 picks right and 4 picks left. Shown also is the drawing-in-draft, reed plan and chain plan.

One reason this type of weaving is not too popular is the reluctance or inability of some mills to make it. When the break is in the warp direction (2/2 twill base), the number

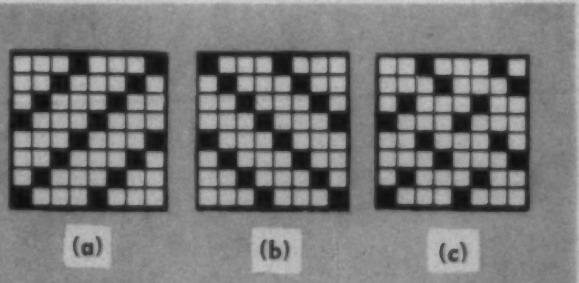


Fig. 7

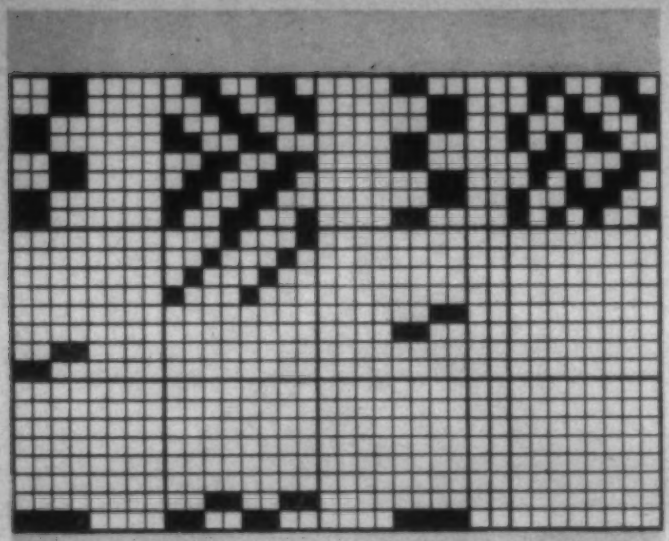


Fig. 8

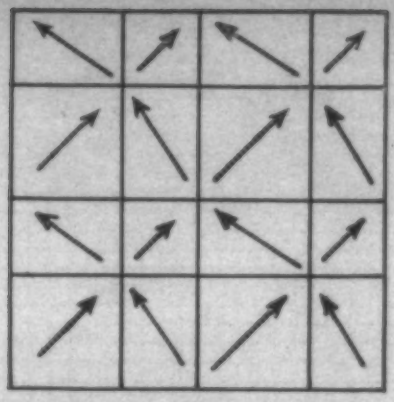


Fig. 9

of harness is 4, but the number of picks is 4 also, which makes possible the weaving on a cam loom. A staggered draw creates the breaks in the warp direction.

When the break is in the filling direction (2/2 twill base), the number of harness is 4, with a straight draw, but the number of picks will vary, and generally above 6, which is out of the range of a cam loom. Thus, a mill with only cam looms could weave a herringbone fabric that had a weave with the twill broken in the warp direction, but could not weave the same construction fabric if the twill was broken in the filling direction. Also, fabrics from dobby looms are generally more expensive than from cam looms, due to fewer looms per weaver for the more complicated dobby.

In addition to the break being made in the warp direction or filling direction, the break can be made in the warp *and* filling direction. Using the 2/2 twill as a base, the illustration used will be 6 ends and picks right, and 4 ends and picks left. This will create blocks with the direction of twill as seen in Fig. 9. All of these blocks are not square. Some are 4 ends x 6 picks, others 6 ends x 4 picks, and 4 ends x 4 picks, as well as 6 ends x 6 picks.

The completed weave is seen in Fig. 10, together with the drawing-in-draft, reed plan and chain plan. Note there is a break, or raisers opposite sinkers on all four sides of every block.

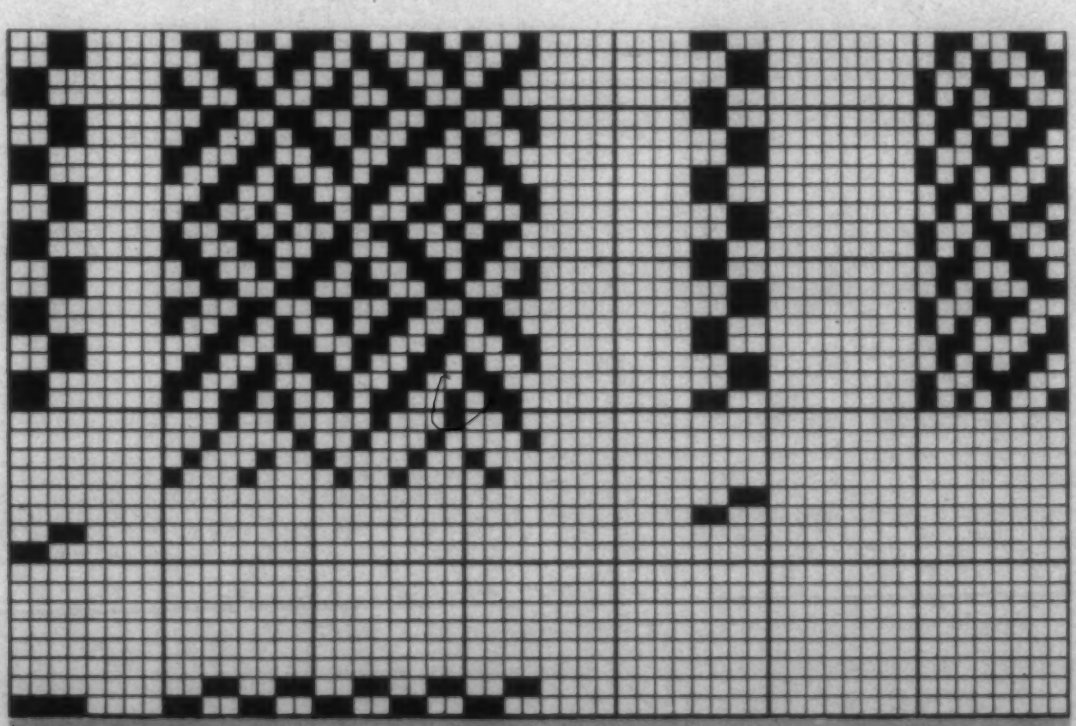
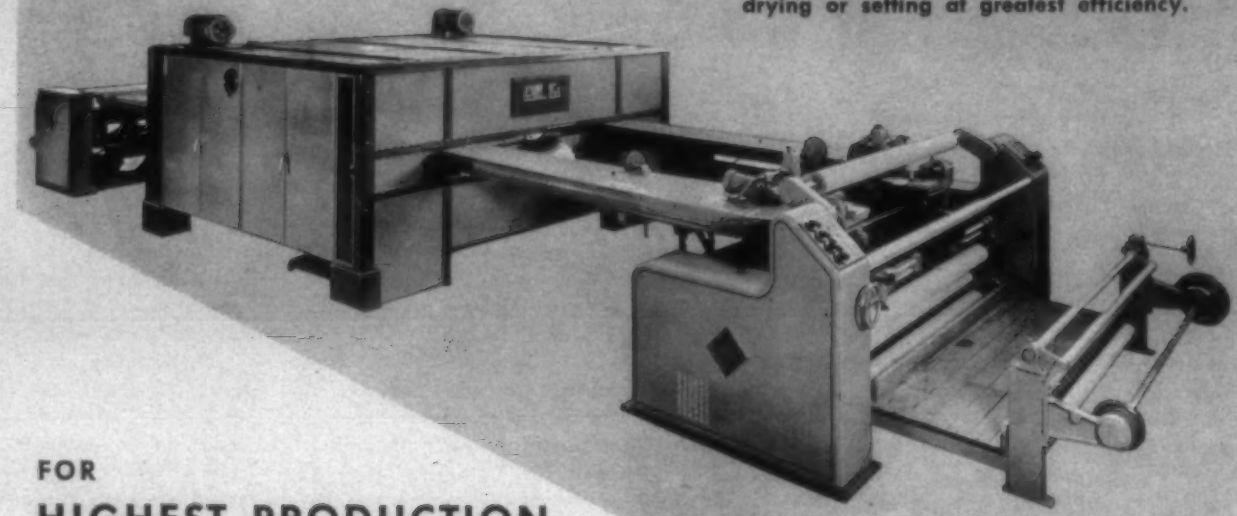


Fig. 10

SINGLE LAYER TENTER FRAME
with combined pin-clip chain permits speeds up to 250 yards per minute. Integral gas heating system within housing or steam radiators provide maximum drying or setting at greatest efficiency.



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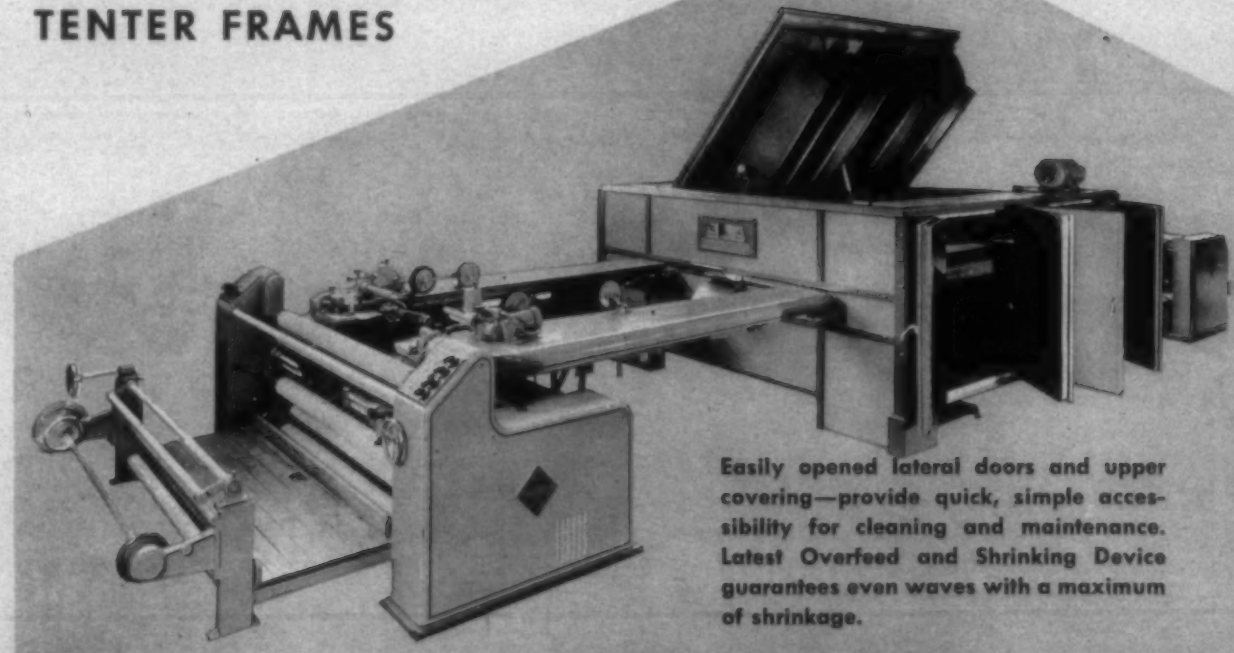

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AN HONORED NAME IN TEXTILE MACHINES SINCE 1903.

A.T.O.E. Members Given Report On Metallic Card Clothing At The Group's Fall Meeting

17 ALABAMA MILLS REPORT RESULTS THEY ARE GETTING FROM 2,099 METALLIC CLOTHED CARDS

BECAUSE of its decentralized and competitive nature, the textile industry can be a severe judge and jury concerning the applicability of new or unusual machines or processes. It has been a long time in coming, and rightly so, but the verdict on metallic card clothing appears to have been brought in by reports from 17 mills at the Fall meeting of the Alabama Textile Operating Executives held in Auburn, Ala. Credence in the reports, in total, is obvious from the fact that the 17 mills operate 2,099 metallic clothed cards.

Other important subjects on which information was released at the carding and spinning session include: (1) needle point card grinding; and (2) new card flat clothing.

Bolt Down Feed Rollers?

Asked if feed rolls were bolted down when metallic clothing was installed 14 mills said yes, two said no. One mill said it did not bolt down feed rolls at first, but did find this step necessary later.

Special Maintenance Problems?

In reply to the question concerning maintenance problems encountered with metallic clothing, the mills generally all agree there are two: (1) more chokes and shedding; and (2) web going around the doffer causing damage to cylinder and doffer clothing.

Method And Frequency Of Grinding

Regarding the necessity and frequency of grinding, the mills were agreed little was required. Some typical comments:

No grinding except by Hollingsworth when needed.
Have ground very few in two years. Use rock grinder.
If web is bad we check sharpnesss of cylinder.
Only when cylinder or doffer damaged.
No grinding, yet, cards installed in January 1960,
Grind only when necessary. Have not ground in 18 months of operation.
Have not ground in a year of operation.
Have not ground in six months of operation.
Use traverse rolls for grinding, as needed.
No grinding necessary unless card is damaged.
No grinding.

Question No. 1: Give your experience with metallic card clothing, stating: (1) grade and staple cotton used; (2) number of cards with metallic clothing; (3) weight sliver; (4) number and make wire; (5) how long installed; (6) whether both doffer and cylinder are clothed with metallic wire; (7) whether replaced or re-worked journals; (8) if re-worked, give method; (9) bolted down feed rolls; (10) how often are cards stripped; (11) card cleaning schedule; (12) setting and checking schedule; (13) method and frequency of grinding; (14) maintenance problems; (15) effect on sliver uniformity, nep count, trash and flat strips; (16) steps taken to prevent chokes; (17) effect on fly around cards and in later processes; (18) effect of card waste reduction on weight of finished yarn; (19) per cent increase in production; (20) labor reduction; (21) compare conventional and metallic maintenance costs.

Mill A: Stock—Middling and better, $1\frac{1}{32}$". Have 66 cards with metallic wire. Make 55-gr. sliver. Use Hollingsworth wire with No. 35 on cylinder and No. 29 on doffer. Metallic wire has been installed about six months. Journals were reworked by Hollingsworth. Cards are stripped once a week, cleaned twice each shift and blown out once a week. Cards are set or checked approximately every 30 days. Cards are not ground except when needed, and then Hollingsworth does the job. Sliver uniformity is slightly improved and neps have been reduced 50 to 60%. Some 25% trash is left in sliver and flat strips are reduced by 10%. To prevent chokes, the back plate was bowed to channel air to the center of the cylinder. Fly is up considerably around cards but not noticeably in later processes. Finished yarn is not heavier because of decreased waste removal at the card. Production increased from 6.9 to 9 pounds per hour with quality greatly improved. Reduction in labor force amounts to two card grinders and three card strippers. This reduction amounts to 0.25 cents per pound.

Mill B: Stock—Middling Bright, $1\frac{1}{16}$". Have 217 cards with metallic clothing making 57 and 50-gr. sliver. Hollingsworth clothing used with No. 35 on cylinders and No. 29 on doffers. Have been installed approximately two years. Journals were reworked in Hollingsworth shop. Cards are stripped once each 120 hours. In regard to cleaning, cards have fronts cleaned every two hours, cards are mopped every shift, and screens and underneath are cleaned on a 9-to-11 day cycle. Cards are set or checked every three weeks. While trash content has decreased slightly, no effect has been seen in sliver uniformity with metallic clothing in use. Nep count is down 50%. Flat strips are reduced from 3.63 to 2.94%. In an attempt to reduce chokes, rubber strips and whiskers have been placed on the side of doffers. The amount of fly has increased throughout the mill. Yarn processes

heavier because of the reduction in waste taken out at the card. Production has been increased from 8.5 to 9.5 pounds per hour. Six card stripper jobs have been eliminated saving 0.2 cents per pound in labor costs. No specific figures are available but a substantial reduction in maintenance cost due to less labor and materials used has been made with metallic clothing.

Mill C: Stock — Middling, 1⅛". Have 108 cards on metallic clothing. Make 59-gr. sliver. Use Hollingsworth No. 35 on cylinders and No. 29 on doffers. Installation was started 10/56 and completed 11/60. Journals were reworked in Hollingsworth shop unless they were too badly damaged. Cards are stripped and chokes pulled every two weeks. Card fronts and flats are set every three months. Backs are set every six months. Sliver uniformity is 25% better and neps have been reduced by 50%. To prevent chokes, anti-choke rubbers have been placed on the sides of doffers and cylinders. Fly in card room has increased some. Metallic clothing has reduced our carding cost per pound by 0.36 cents. The reduction is possible through changing labor schedule:

Labor Schedule

(3-Shift Operation)

Before	After
5 Grinders	4 Grinders
6 Card Tenders (do own stripping)	3 Card Tenders
3 Sweepers	3 Sweepers
1 Utility	

This makes metallic clothing pay for itself in 6 2/3 years considering only labor savings.

Mill D: Stock—Middling 1" and Strict Middling $1\frac{3}{32}$". Have 126 metallic clothed cards making 60-gr. sliver. Have several kinds of wire including: (1) Hollingsworth No. 35 and No. 29; (2) Ashworth 301 cylinder wire; (3) PA .65 doffer wire; and (4) a few cards with HG wire. Eight cards have been installed for a full year. The other 118 were installed during the first six months of 1961. Cylinder and doffer journals were replaced if wear exceeded 0.003-inch or if they were scored. Cards are stripped once per 120-hour week. Backs and sides are mopped every day and fronts are wiped twice per shift. Cards are set all over every 21 days and are re-checked only when doing bad work. Sliver uniformity is 30% better and neps are reduced by 50%. Less trash is left in sliver and the trash that is left is finer. Middling cotton flat strips have been reduced by 53%. Strict Middling flat strips have been lowered by 42%. Have experimented with settings to try to reduce the number of chokes. More fly is seen around the cards. Waste reduction at card is reflected in slightly heavier yarn counts. Labor savings made amount to $325 per week.

Mill E: Stock—50% MCSLL and 50% SLM, all $1\frac{1}{16}$". Have 69 cards making 50-gr. sliver, using Hollingsworth wire. Installation began in January 1960. Journals were replaced when necessary. Cards are stripped every 12 days. Card fronts are wiped 3 times per shift. Cards are mopped once each week. Grinder cleans cards completely every 12 days. Sliver is slightly more uniform, neps are down 31.6% and there is less trash in sliver with metallic clothing. Flat strips were reduced 7.2% without slowing flats. Chokes are no bigger problem than with conventional clothing. Fly increased around card fronts but there is no noticeable difference at processes beyond cards. Yarn weights were about 0.25% heavier due to reduced waste taken out at cards. Card production has not been increased as yet.

Mill F: Stock—Mix of 23.5% Middling, 40% BSL, 30% SL and 6.5% BLM with 65% $1\frac{1}{16}$" and 35% $1\frac{1}{32}$". All 48 cards are clothed with Hollingsworth No. 29 doffer wire and No. 35 cylinder wire. Sliver weighs 54 grs. per yard. The installation started 18 months ago and has been completed for 3 months. Journals were replaced. Cards are stripped once per week. Back fly is cleaned out every shift. Front fly is removed once per week. Card is mopped completely twice per week and is blown off once per shift. Card fronts are wiped twice per shift. Cards are set completely every 48 days. Sliver uniformity is 15% better and nep count is 15-20% lower. The trash left in sliver is slightly less and is in smaller particles. Flat strips have been reduced 2.75% to 2.10%. Chokes are pulled from sides of cards every eight days. Fly in front of cards has increased but there is no noticeable increase in fly at later processes. Waste reduction resulted in heavier yarn count. Card production has been increased from 10.5 to 12.1 pounds per hour. Three card strippers were eliminated. This reduction in labor amounts to 0.24 cents per pound.

Mill G: Stock—Middling $1\frac{5}{16}$" and part waste. Have 39 cards making 70-gr. sliver with Hollingsworth No. 29 doffer wire and No. 35 cylinder wire. Metallic wire has been installed about 18 months. Journals were reworked in Hollingsworth shop. Cards are stripped once per week on white mix and every 24 hours on Osnaburg. Cards are mopped every 24 hours. Backs and fronts are wiped 3 times per shift. Cards are set every 4 weeks and are checked every 2 weeks. Sliver uniformity has been improved 20% and neps have been reduced 40%. Tests on flat strip weights are not complete. About the same amount of trash is left in the sliver. To prevent chokes rubber strips and bristles were put on doffers and cylinders. Fly has increased. Card weights had to be corrected because of the lower amount of waste removed. No labor or cost savings have been made due to the small number of cards on metallic.

Mill J: Stock—Low Middling $1\frac{1}{32}$" and Strict Low Middling $1\frac{1}{32}$". Have 202 cards on metallic and 208 cards on conventional wire making 56-gr. sliver. Hollingsworth No. 35 and No. 29 wire is used. Some cards have been installed for 2 years. Others are still being installed. Journals are not reworked, they are replaced. Cards are hand-stripped once per 144 hours, are mopped completely once per shift and are set every 22 days. Five cards have been ground so far. Improvement has been made in sliver uniformity and nep count. There is less trash left in the sliver. Flat strips have been reduced from 18 to 15 grs. per strip. Chokes are pulled with hook every 11 days. Fly around cards has increased. Weight of finished yarn also increased because of less waste at cards. Production was raised from 10.8 to 14.5 lbs. per hour.

Mill K: Stock — Strict Low Middling Bright with $1\frac{1}{32}$" staple. Have 53 metallic clothed cards at this time running 52.5-gr. sliver. Hollingsworth No. 35 and No. 29 wire is used. The installation was completed on most cards about a year ago. We reworked our journals. The

mill shop built up and turned down shafts with low temperature stainless steel. Journals were then sent to Hollingsworth for installation in doffers and cylinders. Cards are stripped once a week and chokes are pulled every 13 days. All settings are re-set every 13 days. The evenness of the sliver is better and neps were reduced by 12%. There is no significant increase in trash left in the sliver. To prevent trouble from chokes, cylinder, doffer and lickerin bearings are lubricated and shear pins are installed in side shaft bevel gears. There is an increased amount of fly around cards. No changes in labor force have been made since the size of the installation is too small.

Mill M: Stock—Strict Low Middling Bright, 1 1/8". Have 33 cards installed making 50-gr. sliver. Ashworth No. 303 cylinder and No. 70-F doffer wire, and Hollingsworth No. 35 cylinder and No. 25 doffer wire is used. These cards have been running for 6 months. Journals were replaced. Cards are stripped twice weekly, flat strips are pulled twice per shift, and motes and droppings are pulled once per shift. Card settings are checked twice weekly. Uniformity of sliver is as good or better. Neps are reduced. Not enough trash is left in the sliver to effect quality. Flat strips have been reduced from 5.37 to 3.06%. Cards are checked and cleaned frequently to prevent damage from chokes. Have not noticed an increase in fly around cards so far.

Mill N: Stock—75% Strict Low to Low Middling cotton with 1 5/16" staple and 25% No. 1 strips. Have 132 metallic cards running 56.5-gr. sliver. Installation completed in May 1961. Hollingsworth reworked or replaced cylinder and doffer journals as needed. Cards are stripped once a week and mopped once a shift. Card setting schedule is: (1) set 15 backs and screens per week per fixer; (2) set 15 fronts and flats per week per fixer; and (3) set 15 doffers per week per fixer. Sliver uniformity decreased from 5.5 to 5.0% C.V. Nep count decreased from 28.6 to 21.4 neps per grain. Weight of strips decreased from 20.2 to 17.7 per flat strip. Measures taken to prevent trouble from chokes include: (1) bucked the back plate; (2) installed special screen made by Elliott; and (3) installed rubber strips on doffer. With all this, however, chokes are still prevalent. Fly at and beyond cards has increased. Reduction in waste removed increased weight of card sliver 5%. Production was increased from 11.4 to 14.0 pounds per hour and quality is better. Three strippers and two grinders were cut out and card tender's job load was increased 15%. Labor cost was decreased 0.319 cents per pound.

Mill O: Stock—Strict Low Bright, 1". Our 245 metallic clothed cards are making 58-gr. sliver. Cylinders are clothed with Ashworth No. 9, No. 301 and Hollingsworth No. 27, No. 35 wire. Doffers are clothed with Ashworth No. 9 and PA 65, and Hollingsworth No. 27 and No. 29 wire. Began installation in 1929. Since 1946 we have purchased 86 cards which are clothed with metallic. Journals are replaced if necessary. Feed rolls were not bolted down when the installation was made but we are proceeding with this now. Cards are stripped once a week. Doffer chokes are pulled every shift. All chokes are pulled every two weeks. Cards are mopped every 24 hours. Fronts are wiped five times per shift. Clearers are cleaned every 24 hours. Lickerin bonnets are wiped each time a lap is laid. Cards are set complete every three months. Screens are pulled twice a year. Sliver uniformity is better with metallic clothing. Average %C.V. is 3.65. Nep count is approximately 10 per 100 square inches lower than with conventional wire. Flat strips were reduced approximately 40%. To prevent trouble from chokes a strict cleaning schedule should be maintained. Cards should be set and spaced properly. Lint in air increases. The major reduction in labor was strippers and grinders.

Mill P: Stock—Middling, 1". Have 165 cards clothed with Hollingsworth No. 35 and No. 29 wire on cylinder and doffer. Making 62-gr. sliver. Metallic clothing is about a year old. Journals were replaced where needed. Cards are stripped once a week. Card cleaning schedule is the same as with conventional clothing. Each card is set complete every 55 working days. Sliver is more uniform with %C.V. of 13. Neps were lowered by approximately 20%. To prevent chokes the design of cylinder screens has been changed. Fly around cards has increased slightly. The major reduction in labor came from elimination of stripping and periodic grinding.

Mill R: Stock — Middling to Strict Good Ordinary with 1 5/16" and 1" staple. Our 280 metallic clothed cards are making 62-gr. sliver. Ashworth 14-tooth wire doffers and cylinders are on 90 cards. Hollingsworth 14-tooth wire doffers and cylinders are on 141 cards. Hollingsworth 14-tooth wire doffers and 20-tooth wire cylinders are on 49 cards. The average life of this metallic clothing is five years. The total number of journals replaced was 18. Cards are brush stripped each 120 hours. Tenders wipe fronts of cards each shift and mop cards each 24 hours. Cards are cleaned with compressed air each shift. Doffer-to-cylinder, comb-to-doffer, and stripper plate settings are made each 672 hours. Flats, lickerin and mote knives are set each 1,344 hours. Sliver uniformity was improved 10-12% and nep count was reduced approximately 20%. No significant difference in trash content was found in limited tests. Flat strips were reduced over 12%. To prevent chokes strips of rubber were placed on each doffer side. There is no noticeable difference in fly around cards or later in processing. Card efficiency was increased 2%. Cost per pound was reduced by 19% through a 31% reduction in grinders and elimination of vacuum card stripper.

Mill S: Strict Low Middling, 1". Our 201 cards have Hollingsworth No. 35 and No. 29 metallic wire on cylinders and doffers, respectively. Installation has been completed 7 months. Sliver made weighs 58 grs. per yard. Journals were replaced where necessary. Cards are stripped weekly. Card tender mops cards each shift and wipes fronts twice per shift. Motes and fly are pulled each shift. Tender also cleans out under fronts every 24 hours. Card grinder stops cards and cleans out chokes weekly and between cycles as necessary. Cards are blown off every 2 weeks. Tops are ground and set monthly. Back screens, plates and doffers are ground and set every 8 weeks. Screens are pulled every 6 months. Sliver uniformity has improved from 3.0 on conventional to 2.5 according to Uster tester. Nep count has been reduced from 25 to 18 per 100 square inches. There is no noticeable difference in the amount of trash left in sliver. Flat strips were reduced from 2.25 to 1.2% by slowing down flats from 1.75" to 0.40" per minute. Several meas-

ures were taken to prevent chokes: (1) cut the front cylinder screen off 1"; and (2) put brushes, pieces of leather and various other things on the side of the doffer to help keep the chokes knocked out. These things helped some. The best thing to do is keep the cylinder centered in the card and keep the screens set properly. Have the card tender remove the chokes when they form. Waste reduction did make card sliver heavier, but no more fly is present than before changing. Have not changed carding production but think this could be raised 25% if needed. Labor reduction has amounted to a stripper and a grinder per shift. This saving is equivalent to 0.127 cents per pound.

Mill T: Middling MC/SL leaf with staple from $\frac{31}{32}$" to 1". Have 75 cards with metallic clothing making 70-gr. sliver. Card clothing is made by Hollingsworth and is equivalent to regular 100s wire. Installation has been completed about a year. Journals were replaced when necessary. Cards are stripped every 120 hours. Cleaning schedule is: (1) clean and wipe fronts every 2 hours; (2) wipe backs and lickerin bonnets once per shift; and (3) blow-off card once per week. Sliver uniformity has been improved. Neps have been decidedly reduced. Have no difference in flat strips. To prevent chokes nylon bristles have been installed in doffer sides. The amount of fly around cards and at processes beyond cards has not changed noticeably. There is definitely a saving resulting from reduced stripping and grinding, but because of the small size of our installation we have no records on this.

Question No. 2: Discuss advantages of needle point card grinding on regular card clothing.

Mill G: We use a 60-day cycle with our needle-point grinding. We do not return to conventional grinding after a given number of needle-point rounds. There is no reduction in neps with the method. There is no increase in production and we do not know how needle-point grinding affects clothing life.

Mill Q: We needle-point grind on a 10-week cycle, and have not returned to conventional grinding after a number of needle point rounds. Neps were reduced from 85 to 60 per 100 square inches with the system. We estimate clothing life at approximately 8 to 10 years. Have not increased production.

Mill T: We do not needle-point grind on a regular cycle. We grind until desired condition is reached and then return to our regular grinding cycle. Neps are reduced 35 to 40% with the system. We estimate that the life of clothing normally classed as "worn out" was extended from 12 to 18 months with a decided improvement in quality. We have not increased production.

Question No. 3: Discuss your experience with various types of new clothing material on card flats giving: type tried, grinding frequency, whether conventional or metallic clothing on cards, flat speed in inches per minute, flat settings, grade and staple cotton used, pounds per hour carded, and neps per grain.

Mill B: Have tried Ashworth split flat and Eureka and grind them at about the same frequency as regular

clothing. The flats run at the same speed as before (3" per minute) on our metallic cards. Flat settings are the same. We run $1\frac{1}{16}$" Middling Bright cotton. Have not changed our production which is 9 lbs. per hour. Have seen no noticeable change in nep count.

Mill E: Have tried split type flat with hardened point wire. The grinding frequency has not yet been determined. We have both metallic and conventional clothing on our cards. We slowed our flat speed from $3\frac{3}{4}$" to $2\frac{1}{2}$" per minute. Use the same flat setting (0.010") with split flats as with conventional flats. Have not increased production on our cards. Stock run is 50% MCSLL and 50% SLM with staple length of $1\frac{1}{16}$". Neps were reduced by 23.9%.

Mill F: We have tried stripless flats by Oliver D. Landis. Grinding frequency on flats is: Conventional—2 weeks; Hardened point—3 months; and Stripless—have not ground in 3 months of operation. On metallic cards the flat speed is 3" per minute and settings are—0.012" on fronts and 0.011" on rest, regardless of the type of flats. Our stock is a mixture of $1\frac{1}{16}$" and $1\frac{1}{32}$" Middling, Bright Strict Low, Strict Low and Bright Low. Cards produce 12.1 lbs. per hour and we have nep count of 6.5 neps per grain.

Mill G: We have tried hardened point split flats and have changed the grinding cycle from 14 to 28 days. Card clothing is conventional. Flat speed is 3" per minute before and after installation of split flats. Production is 10 lbs. per hour before and after. Flat setting is 0.010" before and after. Nep count is 15 before and after. Stock mix is $\frac{13}{16}$" Middling and part waste.

Mill J: We have tried several types of flats: (1) regular Ashworth; (2) hardened point Ashworth; (3) De-Spa; (4) Sykes Short Cut; and (5) Ashworth Split Top. Grinding cycle on regular is 22 days. Have not determined cycle for others as yet. Card clothing is metallic. Flat speed and setting is the same for conventional and new flats. Stock is $1\frac{1}{32}$" Low Middling. Production was raised from 10.8 to 14.5 lbs. per hour. This has been cut back to 10.8 since the additional production was not needed. Neps per 100 square inches have been reduced from 110 to 70.

Mill K: We have two types of split flats: (1) Sykes Short Cut installed 5/4/61; and (2) Ashworth hardened point wire installed 11/11/60. Before the installation the grinding cycle was every 13 days. Neither the Sykes nor the Ashworth has been ground in 5 and 10 months, respectively. Cards on trial have both metallic and conventional clothing. Settings and speeds are the same as before, 0.010" and $3\frac{1}{2}$" per minute, respectively. We card $1\frac{3}{32}$" Strict Low Middling Bright at 7.25 lbs. per hour and have not seen a reduction in neps since putting on the new flats.

Mill M: We have tried Eureka split flats. The flats have not been ground so far so we have no grinding cycle established. Cards have metallic clothing. Flat speed is 3" per minute. Flat settings were changed from 0.010" to 0.012" after the Eureka was installed. We run $1\frac{1}{8}$" Strict Low Middling Bright at 6.25 lbs. per hour and have had a reduction in neps with the new flats.

Mill O: The grinding frequency of our split top hard-

(Continued on Page 77)

Do You Have What It Takes To Be A Supervisor?

A GOOD SUPERVISOR DOESN'T TRY TO BE A ONE-MAN BAND; HE DIVIDES THE ROUTINE CHORES AMONG HIS SUBORDINATES

By WILMER WESTBROOK

PART 8

SUPERVISION isn't just one job—it's a number of jobs combined. The supervisor must possess and apply a number of skills. He must learn to so synchronize his efforts that the details of all phases of the job receive attention in the order of their importance or urgency.

It is in the handling of these numerous routine details that many supervisors fail. Too many supervisors are jealous of their authority and don't like to share it with others.

When the supervisor attempts to handle the job alone he soon becomes buried under a mass of details. He checks, inspects and directs; snoops, questions and times the movements of men and machines; he requests, requisitions and orders; he tries to keep up with everything personally and usually stays several hours behind schedule.

Under these conditions any sudden change in policy or procedure will throw the entire job out of kilter. Any slight emergency will disrupt the department. The supervisor has no time for planning or for job improvements.

The successful supervisor has learned to assign much of the detail work to subordinates. He also delegates authority so the assignments can be carried out.

A Lesson Long Remembered

I learned this important lesson many years before I became a supervisor and I have never forgotten it. When I was 15 I worked as quill man in a weaving mill. My job was to dump the empty quills from the cans at the looms into a box, which was mounted on casters, and push the box, when filled, to a nearby elevator. The job required a lot of muscle and a minimum of brain work and initiative. I was well-qualified for the position.

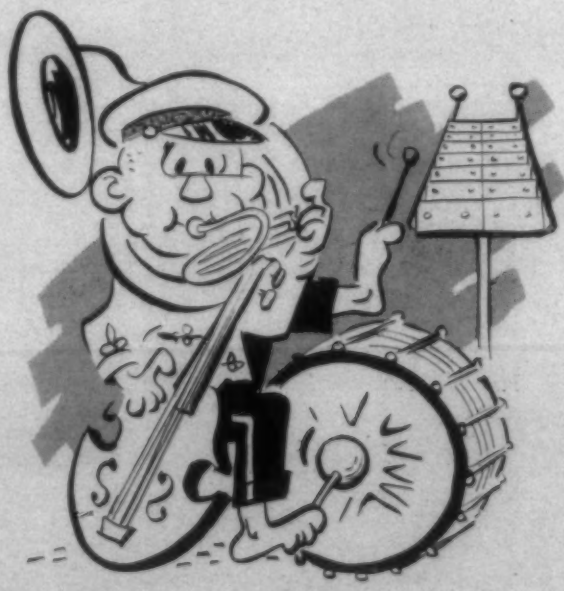
This mill operated one 12-hour shift, five days a week. Friday was clean-up day. On Friday afternoon all the hour hands—loom cleaner, sweeper, quill man, oiler, filling man, cloth hauler—joined in cleaning looms, floors, walls and ceiling.

Since none of us liked this cleaning chore, we did only enough to get by. The supervisor (second hand) had to neglect other duties to prod us into doing even the semblance of a decent job of cleaning. But he solved his problem in a very simple way. He called all the hour hands into the dressing room one Friday at noon.

'Boss Sweeper'

"Men, we aren't doing a good job of cleaning every week," he announced. "Too much effort is being spent on some parts of the work such as blowing off, and not enough on such things as wiping and sweeping. I'm promoting Henry (the regular sweeper) to 'Boss Sweeper.' He'll be in charge of the clean-up every Friday. You'll all take orders from Henry and do as he says."

Henry was not too bright—he signed his paycheck with an X—but he certainly knew how to clean and sweep. Thereafter he didn't do much actual cleaning and sweeping on Fridays but he sure made the rest of us do a good job. Of course he didn't have anyone to boss most of the week except himself but he was more proud of the title, 'Boss Sweeper,' than he would have been of a big raise in pay. And he cer-



Don't try to be a one-man band . . . . . .

. . . . . just concentrate on being the leader.

tainly earned the title. Not a string or piece of lint escaped his eye and we had the weave room spick and span by quitting time every Friday.

I was promoted to my first supervisory job suddenly, without any preparation or training. The regular second hand had become so involved in minor detail work, personnel problems, low production and machine maintenance trouble that he just walked off the job.

Remembering how my former supervisor had handled the cleaning problem, I assigned all the routine detail work that I possibly could to others. I had each loomfixer check in all the employees on his section at the beginning of the shift instead of going around counting noses—65 of them—as the former supervisor had done.

The filling man was given the job, and was held responsible, for an inventory of all types of filling on hand. The warp man listed each warp on hand by style. Each loomfixer estimated the number of warps of each style needed for the entire shift on his section.

Many other chores that the supervisor had been doing personally were delegated to others. Jobs such as sorting bobbins of off-quality filling, weighing several types of waste, regulating the humidifiers, running errands to other departments with orders, requisitions and defective material.

Of course, all the chores were not delegated and forgotten. Spot checks and an occasional follow-up kept everything running smoothly. Although I was a green supervisor with no formal training, this method of enlisting the co-operation of the employees raised my weave room from the cellar to the top room in both output and quality in less than six months.

Assigning part of his duties to others is not a cure-all for supervisors. It does not relieve him of full responsibility for getting the job done. But a careful parcelling of routine details among qualified subordinates will give the supervisor more time for major decisions, for planning, and for programming.

Points To Remember

Here are some points that should be remembered:

(1) Don't delegate authority to anyone who will abuse it or use his position to impose on others.

(2) Don't give any subordinate a free rein in making decisions that affect your job.

(3) Countersign any order, requisition or memo that a subordinate is to deliver to another supervisor or to another department.

(4) Disciplinary action should never be delegated. The supervisor must do this job himself.

(5) When it is necessary to reprimand or to commend, do it in person.

(6) When any task is assigned to a subordinate, invest him with enough authority to carry it out. Inform all concerned of the delegate's status.

When the supervisor turns over a part of his duties to others there are two things he must guard against:

First, he must carefully consider what, and to whom, he delegates.

Second, he must not fall into the habit of delegating every unpleasant task or of sidestepping his own responsibilities.

The supervisor who is willing to share his authority and prestige with others in exchange for help and co-operation will go far. The jealous supervisor who wants to be *The Boss*, and wants everybody to know it, only makes it harder for himself and others by attempting to be the whole show.

350 Attend DuoCard Discussion

(Continued from Page 52)

ed to me to be better than the no-strip metallic wire on the front card.

Mill T: Has anyone tried the flatless card for the front card?

Moderator: I would imagine you're referring to what is called a granular card.

Mill T: Yes sir.

Mr. Orr: We haven't put them together and wouldn't venture to try it. It would depend upon what you want to do.

Mr. Alston: I don't have any experience with the granular card.

Moderator: I might say that I can't make one work in a single card. What are the optimum speeds on the doffer, cylinder, lickerin, flats and for the doffer to the lickerin set up? Let's first take the doffer speeds on the back card and the front card.

Mr. Alston: The speed of the doffer on your back card depends a lot on the stock that you run. You can get that doffer so fast that centrifugal force will not let the fibers stick on it. For your front doffer, I would say that about 27 r.p.m. is about as fast as you can take it off. I believe that you should take the web from your doffer at 2,000 r.p.m. of your comb. We run 17 to 25 r.p.m. right now on the front doffer.

Moderator: Now let's go to the cylinder speed.

Mr. Orr: We haven't changed ours. It's still about 165.

Moderator: I think that the speed of the cylinder should run around 165 to 170. Is that what you find, Otis?

Mr. Alston: We have experimented with a cylinder speed up to 200 r.p.m. but we have not had any increase in our quality at that speed.

Textile Economics Bureau Releases Annual Fiber Consumption Studies

The Textile Economics Bureau, New York City, has published a series of studies on U. S. fiber consumption by end use for the 12-year period of 1949-60.

In home furnishings, man-made fiber consumption for 1960 was 417 million pounds, 26% of the total fibers in 1960. This compares with the 1949-52 average of 131 million pounds representing 11% of the total fibers. The gains were mostly in carpets and rugs, upholstery and draperies, blankets and bedspreads.

Man-made fibers consumed for industrial fabric uses in 1960 totaled 572 million pounds or 48% of the total fibers used in this category. This compares with the 1949-52 average of 394 million pounds representing only 28% of the total. The largest poundages were registered in tires and reinforced plastics.

Total fiber consumption in men's and boys' wear during 1960 was 18% above the 1949-52 average. Cotton increased 23% in this category and man-made fibers 19%. However, wool consumption declined 3%. This dip in wool consumption is attributed to the trend toward lighter weight fabrics and the reduction in the number of overcoats and regular weight suits.

Cotton represented half of the fiber consumed in 1960 by women's and misses' apparel as compared with an average of 40% in the 1949-52 period. Man-made fiber consumption declined from an average of 43% in 1949-52 in this field to

34% of the 1960 total. Cellulosic fibers took the biggest drop within the man-made fiber consumption. Non-cellulosic fiber consumption increased substantially.

In October, U. S. producers shipped 23 million pounds of acetate yarn, 3% more than in September. Total rayon deliveries for rayon in October amounted to 79.6 million pounds or 4% above the preceding month. Of the total acetate and rayon shipments in October, 99.4 million pounds were for domestic users and 3.2 million pounds were exported. Shipments for the month exceeded production by 11.4 million pounds and producers' inventory decreased to an end-of-month level of 92.1 million pounds.

Metalized Fabric Developed By Shirley Institute Being Tested By U. S. Army

An aluminum foil-covered fabric, developed by the Shirley Institute, Manchester, England, designed to protect against intense heat or cold and possibly gamma radiation, is currently being tested by the U. S. Army.

Samples of the material have been under evaluation by various British armed services and government agencies for several months. The combination fabric can be made of cotton, viscose, rayon or man-made fiber coupled with aluminum foil approximately .002 inches thick by adhesion. The foil is completely impermeable before treatment but a method has been devised by the institute to make it porous. A minor adhesive problem in washing or laundering is said to be the only drawback.

Fabrics used may be as light as two ounces per square yard. In one test, the metalized fabric was used as a face shield. A subject placed the mask over his face and stood one inch from a three KW electric stove and reported no sensation of heat.

Textile Foundation Gives Georgia Tech More Than $500,000 In 18-Year Period

At its recent annual meeting at Georgia Tech, the Textile Education Foundation of Georgia reported that it has contributed more than $500,000 to the A. French Textile School and other Georgia Tech activities since 1943.

The largest contribution was for the purchase of machinery and equipment for the school's manufacturing, chemical and testing laboratories. In addition, the foundation supplements faculty members' salaries; provides scholarships; supplements faculty travel expenses; supports various textile technology programs; helps pay for printed materials and other promotional and student recruitment activities and research projects; and has helped pay for industrial relations textbooks, the vocational education program and has furnished and decorated the foyer of the W. Harrison Hightower Building. Another major project of the foundation at the school is a pilot plant for the evaluation of a new method of treating textile waste products.

At the meeting James A. Byars, Eagle & Phenix division of Reeves Bros., Columbus, Ga., was elected foundation president. L. G. Hardman Jr., Harmony Grove Mills, Commerce, Ga., was elected treasurer succeeding Byars.

Zantrel/Carded Cotton Blends Used For Fabric Development In Over 25 Mills

Blends of Zantrel polynosic rayon fiber and carded cotton have stirred considerable interest in fabric development work at more than 25 mills, according to a survey by Hartford Fibres Co., a division of Bigelow-Sanford.

Zantrel is said to provide the effect of combed cotton fabrics in 50-50 blends with the carded cotton, at a price close to all-cotton fabrics. The combination also is reported to reduce waste in spinning and give a higher yarn uniformity. Other features of Zantrel reported by the survey are high dimensional stability; resistance to shrinkage, stretching and sagging; high tensile strength; resistance to resin damage; easily processed on cotton equipment; gives crisp, lofty hand.

The blends are to be used for broadcloth shirtings, poplins and dress fabrics; poplins and gabardines for raincoats; twills, drills and jeans in both work and play clothes; and sateens, cords and novelties for sportswear. Experimental work with blends also includes fabrics such as 80-squares, flannelettes, industrial uniforms and heavy knit goods.

In addition to 50-50 and 60-40 blends, some mills are developing fabrics with 100% Zantrel filling woven with 100% cotton warps. Other work is being done in yarn-dyed cotton and Zantrel blends for chambrays, ginghams and tapestry cottons.

Research To Produce A Wool-Like Cotton Fabric Underway At Harris Laboratories

A one-year research project to be conducted by Harris Research Laboratories, Washington, D. C., and sponsored by the National Cotton Council has been started to develop a cotton fabric which will retain warmth as wool does.

The warmth of a fabric depends on its ability to immobilize air between and around fibers more so than on the insulating power of the fibers. It is believed that lofty, warm fabrics can be produced from cotton, and if the fabric is chemically treated with resins or other crosslinking chemicals and these are cured on the fabric, it should tend to maintain an open structure during use.

Conventional finishing techniques used to produce flat wash-wear fabrics are not suitable for producing lofty cottons, according to the council. The project is to be keyed to finding the treatments which will allow the cotton to maintain its loft during and after processing.

1962 Maid Of Cotton To Be Queen Of The Cotton Bowl In New Year's Day Festival

The 1962 Maid of Cotton, who will be selected in Memphis on December 29, will be queen of the Cotton Bowl January 1.

Other Cotton Bowl activities awaiting the Maid will be presentation at a dinner by the Cotton Bowl Athletic Association at the Sheraton-Dallas Hotel and attendance of a Southwest Conference dance at the Southern Methodist University Student Center.

Cyanamid Develops 100% Acrylic Sheet Requiring No Binder Or Bonding Agent

A new 100% acrylic fiber sheet produced on a papermaking machine and requiring no binder or bonding agent has been developed by American Cyanamid Co.

Similar in appearance to paper, the sheet is expected to be useful in the electrical, filtration and plastics fields as well as others. Compared with the typical wood pulp paper, the acrylic sheet picks up negligible moisture and is resistant to all common solvents and most chemicals.

Other features include superior electrical insulation properties, dimensional stability, resistance to ultraviolet light and compatibility with many classes of resins. Production costs are expected to be less than similar sheets requiring a binder. The

sheet will not compete with paper in such applications as writing or wrapping because it is too expensive.

Ad Series Stresses The Importance Of The Textile Industry To The Carolinas

A series of newspaper ads calling attention to the vital role played by the textile industry in the economy of North and South Carolina is being sponsored by Saco-Lowell Shops. Statistics highlighting the capital investment of the industry in the two-state area, the value of annual salaries and wages, and the volume of goods manufactured are presented in the series. Format of the ads consists of a large photo with textile machinery operating in the background and with caption material below the picture outlining the textile industry's value.

Quality Control In The Weave Room

(Continued from Page 58)

the looms he's supposed to check every day. At the end of the week or in the middle of the week, the supervisor rechecks some of them. He'll spot check them or maybe check the whole job if a fixer isn't holding up his end of the job. That way we can make him keep his part of the job up. Naturally he's required to fix all the looms when he's in there.

Moderator: As far as preventative maintenance is concerned, each fixer has a third of the job. Each man does his work as he has time. If he's not working on a flag job, he's working on the preventative job. Is that correct?

Mill D: Yes.

Mill E: My list like that just has pickers, leather and shuttles.

Moderator: Are yours on a third basis, too?

Mill E: Yes.

King Cotton's Ransom

(Continued from Page 42)

people and in so many different ways that I want to make my personal position absolutely clear. I must emphasize that I am speaking here today as Jim Robison, president of Indian Head Mills, and that these statements are only my opinion. I certainly do not presume to speak for anyone else in or out of the textile industry—today.

In my view the heart and guts of the problem is expressed in one false premise that is constantly reiterated, "The farmer's income must be protected."

"The farmer's income must be protected." This is the *key* to the whole problem—and is the fundamental fallacy which can and should be shattered. Until this nation faces up to this basic fallacy the cotton problem will not be cured—in your lifetime or in mine. If it is faced up to now, it can be cured in one, three, four or five years.

Let's start with that basic fallacy: "The farmer's income must be protected."

Why?

Why must the farmer's income be protected and, particularly, why must it be protected on such an outrageously expensive basis?

Treat Cotton Separately

Let me interject a thought on approach. I have heard it said that cotton cannot be separated from other farm products and other farm support programs. Why not? Why can't cotton be separated? Since 1932 the total direct cost of all

farm support programs to the taxpayers has been in the neighborhood of $20 billion. This is all farm programs, of which cotton is only one, and not the worst one at that. Both corn and wheat have been more expensive. The farm problem is such a muddle that it cannot be cured at one fell swoop.

Why can't we concentrate on cotton? Why can't cotton be taken out and focused on as a single problem? This subject alone is so infinitely complex that it would take a lifetime of study and a lifetime of living with and still one wouldn't know anything about it. No single mind, nor group of minds, could possibly comprehend the whole agricultural picture, including all commodities, and try to solve the cotton problems with an omnibus approach.

As you well know, there is a vast amount of unrest and general dissatisfaction with the farm program in this country. Because the problem is so complicated, I suggest that a good place to start would be to approach cotton as a separate problem. I suggest this for the following reasons:

(1) The problem of the cotton surplus has been largely solved, although at tremendous cost to the taxpayers and the American textile industry. The record carryover of 14.5 million bales on August 1, 1956, has been reduced to about 7 million bales, a relatively manageable amount.

(2) There is practically unanimous agreement that the two-price cotton system must be eliminated—and quickly, but there is much disagreement as to how to go about it.

(3) The cotton farmers who need help constitute a relatively small and easily identified group in well defined geographical areas.

Small Farmers Few

According to the 1960 Census the farm population represents less than 9% of the total population. Less than 16 million people make their living on farms and cotton farmers are a small percentage of the total farm population, concentrated in only a few states. The Census of Agriculture statistics show that there are only 242,000 cotton farms in the U. S. —only 6% of all farms are cotton farms. (By definition, a cotton farm is one from which 50% or more of total sales are derived from cotton). Even if we add the 250,000 other farms which raise some cotton, we are still talking about a relatively small group of people.

The fundamental idea that farm families are for some reason entitled to artificially high support prices for their products is such a silly notion that it is incomprehensible to me how it could persist. There seems to be something in our folklore that claims that the farmer is, by reason of his occupation, a more noble creature than anyone else. I have known a few farmers in my day and I assure you that they can be just as mean, just as ornery, just as selfish and just as difficult as even you and I. They are certainly no worse than we are, but I absolutely refuse to admit that they are any better. Farmers are just people and there are good ones, bad ones and indifferent ones.

Economic cotton farming is a challenging and demanding business. The bulk of our cotton crop is produced by about 15% of the cotton farmers, who are competent and responsible businessmen. They have all the troubles that any other businessman faces. They have to cope with Government controls, accounting problems and steely-eyed bankers. They have substantial amounts of capital at risk. They are perfectly capable and willing to take care of themselves. If allowed to raise cotton and sell it at free market prices, there is not the slightest question that they could supply all of this country's needs, and much of the world's needs on an economic and efficient basis. Moreover, they would give us a better quality fiber, in a decent package, and at a reasonable price.

We have undergone a complete technological and structural revolution in our entire economy and our concepts of agriculture must change. The problems of the low-income cotton farmers must be separated from those of the commercial cotton growers. About 75% of all cotton farmers have allotments of less than 15 acres. Therefore, it is perfectly clear that a rigid support price—no matter how high it may be—could not possibly be of any significant help to these farms.

Unless and until Congress comes to grips with this social problem on a realistic basis, King Cotton will never be set free. The marginal farmers create problems, but theirs are essential social welfare problems and cannot be successfully coped with except on that basis. A ridiculously high support price on raw cotton, tied to an outrageous export subsidy, is the least effective and most expensive way those problems could possibly be handled. Any other type of program that would take care of these people and feed them and clothe them, if necessary, would be cheaper and more sensible. Any program of education and relocation would be cheaper and more sensible. It might appear that I am suggesting that the whole cotton problem should be "taken out of Secretary Freeman's hands" and "dumped into Secretary Ribicoff's lap." Maybe that's not a bad idea—maybe that's where it belongs.

No Regard For Quality

Another fundamental fallacy of the cotton program is the idea that the farmer should have an assured, guaranteed market for his cotton, at an artificially high price and without regard to whether his cotton is needed or wanted. "To assist farmers in the orderly marketing of their crops" is what they call it. The idea persists that he should be guaranteed a customer for his cotton without regard to quality, spinnability, cleanliness or overall desirability for further processing. As a consequence of this fallacy, the quality of American cotton has seriously deteriorated during recent years.

Still another fatuous argument promulgated in defense of these artificially high, rigidly supported prices on cotton is that because the wage earner has a minimum wage the farmer is entitled to a supported price for his crop. That argument is wholly fallacious and irrelevant. Why? Because the wage earner's minimum wage is a minmum wage only if he has a job. There is nothing in the law that says the government must buy what the wage earner produces with his minimum wage. He has a minimum wage only if what he produces can be sold at a profit. If nobody wants to buy what he can make, he has no minimum wage because he has no job. He may have unemployment benefits, but that is another matter.

There are more equally fallacious arguments. For example, it is suggested that subsidies have been paid to other industries, such as the railroads, airlines and steamship lines, and that therefore it is right and necessary for the taxpayers to subsidize farmers. It is true that subsidies have been paid to other industries, and I will not try to defend them. But these industries have not been guaranteed markets for their services, no matter how poorly they have performed or how uneconomic they may be.

So, I say that the way we are trying to cope with the problems of that relatively small group of farmers who cannot make a decent living raising cotton is all wrong. The cotton program is completely ineffective and outrageously expensive. It is a deterrent to economic growth and an obstacle in reach-

ing the goal of increased productivity of the nation through more efficient utilization of capital and manpower.

Can King Cotton Be Freed?

In attempting to correct the situation, which can only be done by Congress discarding the high price support programs for raw cotton, I think that the textile industry should assume the responsibility of convincing Congress that this situation must be corrected.

The U. S. textile industry has been severely damaged by King Cotton's Ransom already paid. It is now being most seriously damaged by the the new demands for King Cotton's Ransom. Im my opinion, if the U. S. textile industry fails to rise to this challenge at this time, the demand for King Cotton's Ransom will go on and on—and get worse and worse—and the whole senseless cotton program will never be straightened out in our lifetime.

There are many self-serving assertions which we can make, that I think are valid, such as

- The taxpayers generally are victimized and the Federal budget is getting further out of hand.
- A large portion of the industrial capacity needed in time of war is being jeopardized.
- Many efficient farmers are now prohibited from using their capital, know-how, imagination, initiative and energy in producing the best spinnable fiber, at the lowest economic cost.

All of these assertions are true. But, if we are willing to fight this battle, let's stick exactly to the best interests of the textile industry. Let's squawk long and loud that we are getting a raw deal and are sick and tired of it. The whole government cotton program is an abomination. It is a fantastic financial failure. It is an outrage. It should be discarded. The textile salesmen and the cotton mills are getting a raw deal. We have been paying an outrageous Ransom for King Cotton. We want the captive delivered up to us, free and clear.

Report On Metallic Card Clothing

(Continued from Page 70)

ened wire is once per 3 months. Conventional flats are ground on 3-week cycle. Cards are metallic clothed and flat speed is 2¾″ per minute. Flat settings have not been changed and are 0.009″. We run 1″ Strict Low Bright, have not changed production, and have experienced a 19% reduction in neps.

Mill S: Our Nemo Short Cut and Sykes Short Cut top wire is not ground. Conventional flat grinding cycle is every 4 weeks. Cards have metallic clothing and a flat speed of 0.4″ per minute. Before and after new flat installation, flat setting is 0.010″. We run 1″ Strict Low Middling, have not changed production, and have not had a reduction in neps.

Mill T: Our Ashworth and Peter Walter hardened point split flats are believed to run for 3 to 6 months without grinding. Conventional flats are ground every 24 days. Both metallic and conventionally clothed cards have a flat speed of 3″ per minute. Flat settings are: 0.010″ on conventional, and 0.012″ on metallic. Stock run is 3 1/32″ to 1″ Middling and Middling Color Strict Low Leaf. Production is 10 to 12 lbs. per hour before and after new flat installation. Neps per grain are: conventional, 13.7; Peter Walter, 10.4; and Ashworth, 10.0.

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FP61-2

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

Williams

Frank C. Williams has joined the sales staff of the Whitin Machine Works and will initially make his headquarters at the Whitin sales office in Charlotte. He graduated from the University of North Carolina with a B.S. degree in commerce in 1947, and from N. C. State College with a B. S. degree in textile manufacturing in 1949. Williams was at one time assistant superintendent of the Patterson Mills Co., a division of Simtex Mills, Roanoke Rapids, N. C. In 1954, he was appointed superintendent of the Roanoke Mills Co., Mill No. 1 of the J. P. Stevens' group in Roanoke Rapids. He joined Springs Cotton Mills, Fort Mill, S. C., in 1956. Since 1959 he had been a salesman for the First Securities Corp. of Durham, N. C.

James Harrell has been named to succeed the late George P. McClenaghan as officer in charge of the 23 plants in the cotton division of J. P. Stevens & Co. with headquarters in Greenville, S. C. Harrell has been with the company since 1947 and was appointed a vice-president in October 1949. He was elected a director of the company in March 1961. A graduate of Texas Tech, he was with Riegel Textile Corp. for nine years prior to joining Stevens. He is a member of the manufacturing advisory committee of Stevens and a member of the executive committee of the National Association of Finishers of Textile Fabrics.

Alan W. Cone has resigned as assistant treasurer of Cone Mills Corp., Greensboro, N. C., and has purchased partial controlling interest in the stock of Blue Gem Mfg. Co. in Greensboro, manufacturer of work and play clothes. Cone is the son of the late Herman Cone Sr., president of Cone Mills until his death in 1955. He will serve as president of Blue Gem.

Frank H. Leslie has been elected senior vice-president and a member of the board and Ely R. Callaway Jr. an executive vice-president of Burlington Industries, Greensboro, N. C. Leslie has been a vice-president and merchandising co-ordinator of Burlington since 1959. Prior to that he was president of Leslie, Catlin & Co., a cotton greige goods sales organization. He has been active in the industry since 1927. Callaway was elected a vice-president of Burlington in March 1960. He joined the company in 1956 with the acquisition of Raeford Worsted Co., and is a member of the management committee. Before joining Burlington, Callaway was a vice-president and merchandise manager of the worsted division of the Amerotron Corp.

The Carolina Yarn Association, at its recent annual business meeting, elected E. Waring Best, Celanese Corp., Charlotte, as president for the coming year. Other officers named include Thomas Ethridge, Courtaulds (Alabama) Inc., Greensboro, first vice-president; William B. Wine, Lassiter-Riegel Paper Co., Greensboro, second vice-president; Reid Durbin, American Viscose Corp., Charlotte, treasurer; Eddie Jones, Johnston Mills Co., Charlotte, secretary. Frank P. Barrie of Leesona Corp., Charlotte, continues as executive secretary.

Dean Pitts has been appointed district engineer in charge of The Louis Allis Co.'s new sales office in Greenville, S. C. Pitts, who is an electrical engineering graduate of Clemson College, will be in charge of sales and service in the metropolitan Greenville and surrounding area.

Duncan M. Stewart, process development co-ordinator for the worsted and woolen divisions of Deering Milliken Inc., has retired at age 65. Associated with Milliken for 15 years, he will continue to serve in an advisory capacity. Prior to joining Deering Milliken, he spent 25 years with the American Woolen Co. Stewart makes his home in Pendleton, S. C.

Grover

Prof. E. B. Grover, head of the textile technology department of the School of Textiles, North Carolina State College, Raleigh, has been awarded a fellowship by the Textile Institute of Manchester, England. The institute is an international association for the forwarding of textile training and education. Grover is also current chairman of the textile division of the American Society of Mechanical Engineers.

James A. Byars, general manager of the Eagle & Phenix Division of Reeves Brothers Inc., Columbus, Ga., has been named president of the Georgia Textile Education Foundation. He succeeds Hansford Sams Jr., Whittier Mills, Atlanta. A graduate of Georgia Tech, Byars has served the foundation as a director, as treasurer, and as chairman of its vocational advisory committee. L. G. Hardman Jr., president of Harmony Grove Mills, Commerce, Ga., succeeds Byars as foundation treasurer. Hardman, a graduate of the University of Georgia, is a past president of the American Cotton Manufacturers Institute, and past president of the Georgia Textile Manufacturers Association. New directors named include Fuller E. Callaway Jr., president of Callaway Mills Co., LaGrange; David D. Hamilton, president of Crown Cotton Mills,

F. Roy Carey
1904-1961

Francis Royal Carey, for many years vice-president and Eastern manager of this journal, died unexpectedly October 30 at his home in Cowesett, R. I. Widely known in both textile and advertising fields, he had represented TEXTILE BULLETIN and its companion publications for more than 28 years. Born in Woonsocket, R. I., in 1904, he had made his home in Providence for 30 years, and in the Edgewood section of Cranston for 15 years before moving to Cowesett five years ago. Prior to joining the BULLETIN in 1933, he had been advertising manager for Textile Finishing Machinery Co. in Providence. He was a communicant of St. Catherine's Church in Apponaug and a member of the Cranston Rotary Club. He is survived by his widow, Irene, and two sons, Paul F. and Donald R., the latter a sales representative for Riegel Textile Corp. Burial was in St. Charles Cemetery, Woonsocket.

Dalton; S. Wayne Hempstead, general manager of B. F. Goodrich Co.'s Martha Mills at Thomaston; and W. C. Vereen Jr., president of Moultrie Cotton Mills, Moultrie.

Peterson

Watson Peterson Jr. has joined Werner Management Consultants, New York City, as director of personnel. He will be in charge of personnel recruitment as well as other internal personnel functions. A graduate of the St. Hyacinthe School of Textiles, Peterson also has a B.S. degree from the University of New Brunswick. He was formerly personnel director of the Edwards Division of Bates Mfg. Co., Augusta, Me., and Waumbec Mills, Manchester, N. H., and previously held various staff, production and supervisory positions with the former Canadian Cottons Ltd. in Marysville, N.B. Canada. Peterson's most recent position was director of management development for the engineering department of Hamilton Standard (a division of United Aircraft) in Windsor Locks, Conn.

Homer M. Carter has been elected president of Pepperell Mfg. Co., New York City, succeeding Brackett Parsons who has retired. Carter, for the past two years, has been executive vice-president. He joined Pepperell in 1925 and became general manager of the Alabama division in 1931. He was elected a director in 1952. Prior to joining the company, he was with Lanett Cotton Mills and Thomaston Cotton Mills. Parsons was elected president in 1949. He joined Pepperell in 1927.

Stump

J. Ralph Stump has been appointed new business representative in the Carolina-Virginia area for William Iselin & Co. He will make his headquarters in Hickory, N. C. Stump is a graduate of North Carolina State College and received a master's degree in business administration from the University of North Carolina. Prior to joining Iselin, he was with the Pillsbury Co. where he had been general manager in charge of West Coast operations, with responsibility for sales, marketing and production. Previously he had made his headquarters in Durham, N. C., as marketing manager for the Wright Machinery Division of Sperry Rand Corp.

Frank H. Coker, one of the original pioneers in Du Pont's rayon enterprise, has retired after more than 38 years with the company. Prior to retirement he was in the marketing division of Du Pont's textile fibers department. Coker began his association with the company as a member of the treasurer's department of the former Du Pont Fibersilk Co. in Buffalo, N. Y., in 1923.

Werner Pels, a member of the staff of the National Cotton Council of America, has been named a research adviser to the Southern Utilization Research and Development Division of the U. S. Department of Agriculture, with headquarters in New Orleans. He is to specialize in collaboration on canvas products research at the division. A graduate of Georgia Tech, Pels joined the Cotton Council in 1958. He was connected with the mechanical processing section of the Utilization Research Division until July 1960, when he transferred to the finishing section.

Roy N. Miller has joined the Atlanta district sales office of American Viscose Corp. film division as the Avisco cellophane sales representative in southern Virginia, northern North Carolina and the northeast corner of Tennessee. Prior to joining American Viscose, he was a salesman for General Mills Inc. Miller graduated from Berry College, Mount Berry, Ga., with a B.S. degree in business administration in 1958.

Chester R. Dodd has been named assistant sales manager of the tire yarn sales division of American Viscose Corp., Philadelphia, Pa. He will also continue to represent Avisco in the Akron, Ohio, area in both a direct and technical sales capacity. Dodd joined American Viscose in 1937. From 1959 to 1961 he was tire yarn technical sales representative for the technical sales service department in Front Royal, Va.

Robert M. Stopford of J. P. Stevens & Co. has been elected president of Woolens and Worsteds of America Inc., New York City, at the annual meeting of the organization's board of directors. Stopford, a director, succeeds George A. Ott of Richard M. Ott & Sons, Boston. . . . Officers re-elected at the meeting were G. Penwick Shepperd, executive vice-president; William I. Ken, Stuart MacArthur, Ronald A. Mitchell and Elsie Murphy, vice-presidents; Fred Fowles, treasurer, and Ernest S. Meyers, secretary and counsel.

James B. Duffy, sales manager of Gardiner Hall Jr. Thread Co., has been elected board chairman of the Thread Institute, New York City, succeeding Fred L. Johnson, retired president of Belding Heminway Co., who has held the post for five years. Duffy had been active in the institute as a director, member of the executive committee and most recently as treasurer. J. W. Shaver, president of Coats & Clark Sales Corp. was elected treasurer to succeed Duffy.

Several top-level management changes have been announced in the Dover mill group at Shelby, N. C. J. R. Dover Jr. has been named chairman of the boards of directors for the six Dover corporations. He will continue as chief executive officer. C. I. Dover has been elected president and treasurer of the six companies. G. D. Vincent has been named vice-president and general manager of the Dover Mill Co., Ora Mill Co., Dover Yarn Mill, and the Dora Knitting Co., all in Shelby, and the Dora Yarn Mill in Cherryville, N. C. R. G. Laney was named vice-president and general manager of Esther Mill Corp. in Shelby. Harvey Hamrick was named secretary of Dover, Ora, Dover Yarn, Dora Yarn and Dora Knitting. C. P. Roberts was named assistant treasurer of Dover, Ora, Dover Yarn, Dora Yarn and Dora Knitting. Buddy Roberts was named plant manager at Dover; John Laney, plant manager at Ora; T. B. Falls, secretary and assistant treasurer at Esther; John Hawkins, plant manager at Dover Yarn and Dora Yarn; F. D. Quinn Jr., superintendent at Dora Yarn; and Howard Rollins general superintendent of all plants.

Reynolds

James N. F. Reynolds Jr. has been elected president of H. W. Butterworth & Sons Co., Bethayres, Pa. Reynolds was formerly vice-president in charge of manufacturing of Van Norman Industries Inc., parent company of Butterworth. Prior to his association with the corporation, he was with the Scovell Wellington Co. He succeeds J. Elbert Butterworth who retired recently as president and board chairman.

Julian C. Harmon, vice-president and director of Cannon Mills Co., Kannapolis, N. C., and manager of the towel manufacturing department for 13 years, will assume new duties effective January 1. He has requested the board of directors to relieve him as manager of the towel department effective December 31. Harmon has been with the company for 48 years in various capacities.

Arnold H. Bates, overseer of spinning at the Northern division of J. P. Stevens & Co. at North Andover, Mass., has been elected president of the National Association of Woolen and Worsted Overseers. Bates succeeds Arthur L. Mullen, Albany Woolen Co., Albany, N. Y. Stephen Rittlinger, Warrenton Woolen Co., Torrington, Conn., moved up from second to first vice-president. T. H. Newell moved from third to second vice-president, and R. C. Gariepy, Elmvale Dye Works, Pittsfield, Mass., was named third vice-president.

J. J. Love and H. E. Russell have been elected vice-presidents of Mayfair Mills, Arcadia, S. C., and B. F. Hagood has retired as a vice-president. Love, manager of the company, was with The Goodyear Tire & Rubber Co., Highland Park Mfg. Co. and Riegel Textile Corp. prior to World War II. He became manager at Mayfair in 1946. Russell joined Glenwood Cotton Mills in 1928. When Glenwood was acquired by Mayfair in 1948, he was made manager. He was also assistant treasurer of Pickens Mill from 1927 to 1958 and is a past chairman of the cotton division of the South Carolina Textile Manufacturers Association. Hagood is devoting full time to his responsibilities as president of Pickens Mill and will serve as consultant to Mayfair. He joined Glenwood in 1916 and was elected a vice-president of Mayfair when it acquired Glenwood. He is a director of the South Carolina Textile Manufacturers Association.

Dr. James P. Dux has been promoted to section leader of the acetate fiber section of American Viscose Corp.'s fibers division, Marcus Hook, Pa., succeeding Dr. M. T. O'Shaughnessy who has resigned. Dux joined American Viscose in 1954 as a research chemist. In 1957 he was named group

leader in research and development and in 1958 was named to head the group. . . . Joseph W. Schappel has been named section leader of the viscose fiber section and will assume responsibility for work on viscose staple and filament yarn. Schappel joined the company in 1945 as a research chemist. He was later promoted to senior research chemist and since 1959 has been a group leader in research and development.

Burns

William F. Burns has joined Bibb Mfg. Co., Macon, Ga., in the research and development department. He graduated from the University of Alabama with a B.S. degree in 1951. In 1958 he joined the Hercules Powder Co. where he was employed for two years in research and development. Prior to joining Bibb, he was employed at the Virginia elastic plant of H. Warshow & Sons.

Abbeville Mills has announced a realignment of its management group. W. F. Umstaedter, formerly manager of the weaving mill, has been named plant production manager, responsible for all production including spinning, weaving and finishing. He will also be in charge of production control and plant engineering. . . . Charles B. Palmer, formerly yarn plant manager, is now plant technical manager responsible for all quality control, industrial engineering and sample manufacturing functions. . . . Howard R. Walker, formerly finishing plant manager, has been named product development manager.

Elliott Morrill, plant manager, Corn Products Co., Indianapolis, Ind., has been re-elected president of the American Association of Textile Chemists & Colorists for 1962. The election results were announced November 17 at the annual meeting of the association at the Hotel Sherman in Chicago. National vice-presidents elected were Dr. J. Edward Lynn, a consultant to the textile and related industries, Old Greenwich, Conn.; and Joe D. Mosheim, manager, Crystal Springs Bleachery Co., Chickamauga, Ga. Vice-presidents of the association re-elected were William S. Sollenberger, assistant head, dyeing and finishing division, American Viscose Corp., Marcus Hook, Pa., and Joseph H. Jones, general manager, Phoenix Dye Works, Cleveland, Ohio.

Charles F. Waldron, former senior agent for the U. S. Internal Revenue Department in Greenville, S. C., has been named controller of Clinton-Lydia Cotton Mills and trust officer of M. S. Bailey & Son, both in Clinton, S. C.

Lex Bassinger has been named plant manager of Collins & Aikman Corp.'s Stead & Miller Division plant in Concord, N. C. Bassinger replaces J. V. Houston, who resigned recently. Formerly assistant to the plant manager, Bassinger joined Collins & Aikman in 1957.

F. M. Wiley, former vice-president of Abney Mills, Greenwood, S. C., has joined M. Lowenstein & Sons at Anderson, S. C., in an executive capacity. Wiley has been assigned duties with the Lowenstein greige mills in the Southeast and on occasion will travel out of the country. He joined Abney in 1942 and served as overseer, superintendent and manager before being named vice-president in 1956.

Frederick A. Odell has been promoted to sales manager for Whitin International Ltd. Odell, after studying textile manufacturing at Rhode Island School of Design, joined the H & B American Machine Co. When H & B discontinued operations in 1952, he joined the Northern sales staff of Whitin Machine Works in Whitinsville, Mass. In 1957 he was transferred to overseas sales, working with Whitin International Ltd. He has traveled for the company in India, the Far East, the Middle East and South America.

Harold A. Blancke Jr. and J. A. Plant have been named managers of mill marketing relations for Celanese Fibers Co., a division of Celanese Corp. of America, New York City. Blancke, formerly district sales manager for Celanese fibers at Charlotte, will serve as manager of greige mill marketing relations. Plant, who joined Celanese in 1960 as a senior account representative of the mill marketing department in New York, will serve as manager of integrated mill marketing relations. They will work out of the New York office, supervising mill customer coverage and co-ordinating mill marketing activities with all departments of Celanese sales and merchandising.

Dr. Alfred M. Heald has been named assistant director of chemical research and chemical manufacture for Sonoco Products Co., Hartsville, S. C. In this capacity, he will assist Sonoco's director of chemical research and chemical manufacture. Dr. Heald started his career with the Marathon Corp. of Menasha, Wisc., in 1939 as a research chemist and in 1949 was named group leader for the wax research section. In 1951, he joined Scott Paper Co. of Chester, Pa., as supervisor of the wax paper research section. In 1952 he was named staff product co-ordinator. Dr. Heald joined the Hollingsworth & Whitney Co. of Waterville, Me., in 1954 as director of research and development. Following the merger of this firm with Scott Paper Co. that same year, he was named technical director for Scott Paper, Northeast division.

Wall

L. C. Wall, divisional sales manager, has been named to assist the assistant director of sales at Sonoco Products Co., Hartsville, S. C. He will also continue with various functions of his job as divisional sales manager, but will concentrate more directly to a study of Sonoco's general line products and their end uses. Wall joined Sonoco in 1935 and was assistant divisional sales manager prior to being named divisional sales manager in March 1957. . . . In other management moves, Russell C. King Jr. was named to supervise various accounts formerly handled by Wall. King has been with Sonoco since 1956. In 1958 he was named chief order clerk and in 1960 he was named assistant divisional sales manager.

W. E. Galloway is the new assistant divisional sales manager. He joined Sonoco in 1956.

John Caldwell has joined Southern States Inc., Hampton, Ga., as assistant engineering manager, development. He is a former Southern States employee having been associated with the company from 1926 through 1947 as chief engineer, mechanical division. Prior to rejoining the company, Caldwell was chief engineer and production manager for Meadows Mfg. Co., Atlanta.

Robert C. Hyatt has been promoted to general manager of the Antara chemicals division of General Aniline & Film Corp., New York City. Hyatt was formerly director of marketing for the Antara chemicals division. He joined the corporation in its central research laboratories at Easton, Pa., in 1950 and later was appointed sales engineer of Antara direct sales. In 1957 he was named product manager, surfactants, and in 1959 became manager of administration on the staff of the general manager of the dyestuff and chemical division. He later became director for marketing for the Collway pigments division of the chemical group.

Rufus C. Allen, formerly vice-president and director of the manufacturing services division of Bruce Payne & Associates, management consulting firm, has established industrial and business consulting services at 4218 14th Street, Raleigh, N. C. Allen will specialize in cost reduction of direct and indirect expenses, wage and salary administration, equipment utilization and justification of new purchases. Prior to joining Bruce Payne, he was chief industrial engineer for Laurens Mills, Laurens, S. C.

Benjamin G. Thrift has been named manager of Cone Mills Corp.'s pilot plant and fabric development sections of the research and development division, Greensboro, N. C. The appointment is the result of the consolidation of the two sections. Charles Moody has resigned as pilot plant manager. Thrift has been assistant business manager of Cone's Revolution Division since 1959. He joined the company in 1949 and is a graduate of North Carolina State College with a B.S. degree in textile management.

Ralph W. Jones Jr. has been named marketing manager for rugs and carpets in Du Pont's textile fibers department, Wilmington, Del., replacing John R. Emery, who has been transferred to the New York office as marketing manager. Emery, who has directed Du Pont marketing efforts to the carpet industry since 1958, replaces Charles D. Wenrich who is moving to new duties in the international department. In his new post, Jones will be responsible for marketing all Du Pont fibers to manufacturers of rugs and carpets. For the past two years, he has been assistant manager of nylon products. He has been a member of Du Pont's textile fibers department for 27 years and has served in key supervisory posts at three Du Pont plants—in Richmond and Martinsville, Va., and Seaford, Del.

R. J. Raymond and Curtis Knight have been named general manager and superintendent, respectively, of the Cedartown, Ga., plant of Textile Paper Products Inc. Raymond joined the company from Richkraft

Co., Chicago, where he was assistant sales manager. He was previously vice-president and general manager of Giffen Building Specialties in Coral Gables, Fla. Knight joined Textile Paper Products in March 1960, and served as assistant superintendent of the firm's Crossett, Ark., plant. Before joining the firm, he was with Monroe Bearing & Supply Co., and J. B. Beaird Co., both in Monroe, La.

Norman

Eric B. Norman has been appointed general manager of H. W. Butterworth & Sons Co., Bethayres, Pa. From 1940 to 1952, Norman was associated with E. B. Eddy Co., Hull, Que., where he served in various capacities in all phases of paper manufacturing. He was appointed public relations representative of the Eddy company in 1950. In 1952 he joined B. F. Perkins Co., Holyoke, Mass. He was appointed sales manager in 1956 and was also assistant to the vice-president and general manager.

Harold G. Shelton has been appointed to the newly-created position of executive vice-president of operations for General Aniline & Film Corp., New York City. Shelton, who was vice-president and group executive of the company's chemical group, will direct all operating groups and divisions. He joined the company in 1945 as sales manager of the Antara chemicals sales department of the dyestuff and chemical division. In 1957 he was appointed marketing director for the division and in 1958 named general manager. Prior to joining National Aniline, Shelton was associated with Union Carbide Corp. for 13 years. . . . Francis A. Gibbons, also executive vice-president, was named to head administration for the corporation. . . . Dr. C. C. Schulze, formerly general manager of the Antara chemicals division, succeeds Shelton as group executive of the chemical group. Dr. Scrulze has been with the company since 1942 and has held executive positions covering all phases of dyestuff and chemical research and manufacturing.

James F. Magarahan has been appointed vice-president and general manager of Lyman (S. C.) Printing & Finishing Co. He joined Lyman in January 1959 as assistant vice-president in the company's New York office. He succeeds J. O. Lindsay, who has resigned. Prior to joining Lyman, he was with the Southern Bleachery & Print Works in Taylors, S. C., for 13 years.

Henry Rider, general second hand in the weave room at Riegel Textile Corp.'s Trion, Ga., division, has been promoted to assistant overseer. He has been with the company for 27 years, the past 14 as second hand. Everett Nox, who also has been a second hand, was named to succeed Rider as general second hand, third shift.

Frederick R. Westcott, chairman of the board of Cabin Crafts Inc., Dalton, Ga., has been elected chairman of the board of trustees of the American Carpet Institute for 1962. He succeeds W. Lyle Holmes, president of Archibald Holmes & Sons, Philadelphia. Westcott helped start Cabin Crafts in 1932.

Lawrence E. Cash has been named overseer of weaving at Fulton Cotton Mills in Atlanta. He was formerly superintendent of slashing and weaving at the Cordova, Ala., plant of Indian Head Mills.

Spencer B. Montgomery has been elected to the board of directors, West Point Mfg. Co., West Point, Ga., to fill the vacancy created by the death of the late Harry Atherton. Montgomery, a trademark and copyright attorney, has been associated as an officer, director or consultant in the operation of several companies including H & B American Machine Co., Pawtucket, R. I.; Booth Mills, New Bedford, Mass.; Boston Machine Works, Lynn, Mass.; Palmetto Cotton Mills, Palmetto, Ga.; and C. E. Riley Co. of Boston. He is now president and a director of Palmetto Cotton Mills and secretary and director of John Hetherington & Sons Inc., Gastonia, N. C., distributor of textile machinery.

James A. Campbell has been named sales representative for James Talcott Inc. in the Greensboro, N. C., area. Campbell will handle the full range of Talcott services to business and industrial firms within a 75-mile radius of Greensboro. He was previously with James Talcott Southern Inc., in Atlanta and was sales representative for Joel Hurt Factors, Atlanta, from 1958 to 1960. He was sales representative for Johnson-McReynolds, Roanoke, Va., from 1949 to 1958, and sales representative for Dun & Bradstreet's Washington, D. C., and Roanoke operations from 1935 to 1949.

Cunningham

Philip D. Cunningham has joined Sou-Tex Chemical Co., Mount Holly, N. C., as a sales technician. He will travel selected portions of the Southern textile and related industries. He was formerly with Glyco Chemicals Inc. and Cravenette. Sou-Tex manufactures chemical specialty products under license agreements from its parent company.

C. R. Pease, assistant manager of the Columbus, Ga., division of West Point Mfg. Co., has been named chairman of the Textile Operating Executives of Georgia. He succeeds Lee Wynn, superintendent of Canton Cotton Mills, Canton. Henry Walker, superintendent of Dundee Mills, Griffin, Ga., was elected vice-chairman, and Dr. James D. Taylor, director of Georgia Tech's A. French Textile School, was re-elected secretary-treasurer.

OBITUARIES

George W. Brooks, 56, director of technical service and sales for American & Efird Mills, Mount Holly, N. C., died suddenly November 11. Prior to joining American & Efird Mills in 1958, Mr. Brooks was superintendent of the Belmont (N. C.) Throwing Corp. for 18 years. Survivors include his widow and one daughter.

Kendall T. Greenwood, 57, vice-president of LaFrance Industries in Pendleton, S. C., died November 14 after an illness of four months. Mr. Greenwood had spent his entire career in the textile business having served with American Woolen Co., Goodall-Sanford Co. and as manager of the Massachusetts Mohair Plush Co. He was credited with starting the industrial fabrics division of LaFrance Industries. He is survived by his widow and one son.

Carl C. Mattmann Jr., 67, synthetic fibers fabric pioneer, died November 8 after a short illness. Mr. Mattmann was a pioneer in the fabric development phase of the man-made fibers industry. After finishing college in 1916, he went into the family business, Astoria Silk Works, Astoria, L. I., N. Y., and remained until the business was liquidated. He then was with Mattmann Silk Mills. In the late '20s, he entered the rayon filament fabric development field. He was employed during the following years in various capacities by Industrial Rayon Corp., American Enka Corp., Fitchburg Yarn Co., Tennessee Eastman Corp., Textron Inc., Virginia-Carolina Chemical Co. and the B. F. Goodrich Chemical Co. Mr. Mattmann was the program chairman of the American Association of Textile Technology for many years. He also served as a director and later as president. His survivors include his widow and a daughter.

Douglas C. Newman, 64, former director of sales of the Du Pont Co.'s dyes and chemicals division, Wilmington, Del., died of a heart attack October 28. Mr. Newman, who retired in early 1959, joined Du Pont in 1918 as a textile colorist. He was made assistant manager of the Charlotte, N. C., office in 1927 and manager in 1943. In 1949 he was transferred to Wilmington as assistant director of sales for the dyestuffs division and was appointed sales director in 1950. In 1951, he was named general director of all sales of the organic chemicals department, and in 1955 became director of sales of that department's dyes and chemicals division. Prior to working with Du Pont, he was a chemist and textile colorist in the dyestuff application laboratory of the Federal Dyestuff & Chemical Corp. of Kingsport, Tenn.

W. E. Scholer, 53, manager of the fabric development department of American Viscose Corp., New York City, died unexpectedly October 28 at his home in Mt. Vernon, N. Y. Mr. Scholer joined American Viscose in 1940 in the fabric development department and became manager in 1948. Prior to joining the company, he had been associated with Cheney Bros., Pen-I-Sauken Silk Mills, A. D. Juilliard & Co. and Stehli & Co. He had been a past president of the American Association for Textile Technology and was active in Committee D-13 of the American Society for Testing & Materials. He was awarded the Naval Ordnance Development Award in 1946. He is survived by his mother and two sisters.

Julian L. Wade, 63, traffic manager for J. P. Stevens & Co., Greenville, S. C., died recently. A graduate of Clemson College, Mr. Wade had been with Stevens since 1923. He is survived by his widow and a son.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

WEST POINT, GA.—West Point Mfg. Co. expects profits to be up 15% for the first quarter of the current fiscal year. Shipments for the first two months were up 19.6% over the same period last year. The company's unfilled order position is approximately 55% higher than in January 1961. Total depreciation for the 1962 fiscal year is estimated at $5.4 million as compared with $3.9 million last year.

MARION, N. C.—Washington Mills Co. held formal dedication ceremonies at its new plant here November 10. The $1.5 million dollar facility, located on an 80-acre site, will manufacture men's and boys' sweater shirts and other sportswear. Washington Mills, with headquarters in Winston-Salem, N. C., is a producer of both woven and circular knit goods. The firm has plants at Mayodan and Dobson in North Carolina, and at Fries, Va.

EASLEY, S. C.—The U. S. Rubber Co. has purchased ten Saco-Lowell Rovematic roving frames as part of its modernization program at the Winnsboro, S. C., plant and Hogansville, Ga., plant. Four units of 80-spindle capacity will go to Winnsboro and six 96-spindle units will go to Hogansville.

BURLINGTON, N. C.—The Lanese Plant of Celanese Fibers Co., a division of Celanese Corp. of America, will close by early '62 because of changing market conditions. The production of spun yarn is to be gradually curtailed. Employing 110 people with an annual payroll of more than $500,000, the plant has 147,000 square feet of floor space located on almost five acres of land. Company management announced that every effort is being made to assist employees in finding other employment.

NEW YORK, N. Y.—In its first diversification outside the textile field, Deering Milliken Inc. has announced plans to market a Swedish machine and process for packaging of beverages. The container is produced from cellulose and polyethylene and the company reports its use in the U. S. is growing at the rate of 100% per year. A long term agreement has been signed with Ackerlund & Rausing, Lund, Sweden, covering patents and trademarks of the process. Deering Milliken will lease the units and will retain part of the rental fee.

MACON, GA.—Bibb Mfg. Co. reports declines in both profits and sales for the fiscal year ended August 31. Profits dropped 19.7% to $2.5 million on an 8.3% dip in sales to $73.7 million. Earnings in 1960 were $3.1 million on sales of $80.3 million. Robert Train, president, reports that consumption of raw materials, shipments of finished goods and profits all declined during the year. At present, he notes, business conditions look somewhat better.

SYLACAUGA, ALA.—Avondale Mills reports net earnings for the fiscal year ending August 31 of $2.3 million on sales of $56.2 million as compared with earnings of $2.1 million on sales of $60.7 million in 1960. This represents a 9% increase in earnings and a decrease of 7% in sales. The company spent $5.4 million for new equipment in fiscal 1961 as part of an overall $8.5 million program spaced over two years. Unfilled orders for Avondale stand at 32.5 million pounds, an increase of 61% over the beginning of last year. The company reports that it is going to be difficult to maintain a satisfactory margin of profit in 1962 because of the increase in the price of cotton.

DANVILLE, VA.—Consolidated net sales of Dan River Mills for the three months' period ended September 30 improved over the sales volume in the third quarter a year ago, but for the nine months' period were behind 1960 sales. For the nine months just ended, they amounted to $110 million compared with $119.9 million in the similar period last year. Net earnings declined to $3.4 million for the nine months from $5.2 million last year. W. J. Erwin, president, noted that the upturn in the textile market has not moved as rapidly as anticipated. He added: "Our sales are increasing and our order position is more favorable, but with prices still lagging, it seems probable that the effect of the upturn will not be substantially reflected in our earnings until the first quarter of next year. Results for the final quarter this year are now expected to fall short of those for the fourth quarter a year ago."

GREENSBORO, N. C.—Burlington Industries reports earnings for the fiscal year ended September 30 of $23.3 million on sales of $866 million, a drop of 34.3% from earnings of $35.4 million on sales of $91.3 million for fiscal 1960. The current earnings figure includes a non-recurring income of $2.3 million and also a provision for estimated future loss on partial disposal of assets of the Peerless Woolen Mills of $3.9 million net of related income taxes.

NEW YORK, N. Y.—Belding Heminway has reported sales and earnings for its third quarter up 30% and 19%, respectively. Sales totaled $11.1 million as compared with $8.5 million for the third quarter 1960. Net earnings were $182,512 as compared with $153,349 for the same period last year. Nine months' earnings totaled $507,813 on sales of $31.8 million as compared with earnings of $589,549 on sales of $25.6 million for the nine months in 1960. Factors cited by Richard T. Kropf, president, as affecting profits were the continuing start-up expenses in connection with the expansion of the company's fiber glass operations and the carry-over of narrow profit margins from the past recession.

PROVIDENCE, R. I.—James E. Robison, president of Indian Head Mills, has forecast that his company's sales will pass the $100 million mark this year. He declined to forecast profits because of the variables involved. He also noted that the cotton subsidy situation is "abominable" and imports are threatening the industry. But the problem of soaring inventories, as shown in steep drops in industry profits, is the real back breaker. He said that the textile industry is not a growth industry and its companies cannot count on growth without having something new that people want or without having a cost advantage. Robison denounced the idea that the purpose of an industry was to provide jobs. "The only reason for a company being in business," he said, "is to produce something that somebody wants to buy." Belief that the purpose is to provide jobs has resulted in the textile industry's high inventories "to keep plants running" when the market is not seeking to absorb their output.

NEW YORK, N. Y.—Consolidated net earnings of United Merchants & Manufacturers increased 37.1% in the firm's first fiscal quarter ended September 30. Net profits were $2.2 million as compared with $1.6 million during the same quarter a year ago.

CHATTANOOGA, TENN.—Standard-Coosa-Thatcher Co. is modernizing its spinning frames with drafting changeovers from Dixon Corp., Monroe, N. C. The new parts are being installed in both the Piedmont, Ala., plant and the plant here. The company is modernizing other parts of its mill along with the spinning changeovers.

CLEVELAND, TENN.—Employees of Peerless Woolen Mills, a division of Burlington Industries, here, have voted 399 to 292 against representation by the Textile Workers Union of America. The election was held November 15 following an intensive union campaign that began last August.

YORK, S. C.—York Southern Mfg. Co. and Neeley Mfg. Co. have announced plans for an expansion that will increase production and double the number of employees within the next year. Both companies, subsidiaries of Crown Textiles, Philadelphia, will change their plant layouts and machinery as new methods and fabrics are developed. Currently there are some 150 employees here with an annual payroll of $500,000.

ABBEVILLE, S. C.—Abbeville Mills, a division of Deering Milliken Inc., has announced that it will gradually shut down some equipment and lay off 15 to 20% of its work force. The plant normally employs between 1,000 and 1,200 workers. The reduction is attributed to production stoppage on unprofitable fabrics, particularly shirtings.

NEW YORK, N. Y.—M. Lowenstein & Sons reports a 41.9% decline in net profits and a 2.3% rise in sales for the third quarter of this year. Earnings totaled $446,677 on sales of $103.4 million as compared with profits of $768,292 on sales of $101 million for the third quarter 1960. Nine months' figures show a 69.6% drop in earnings and a dip of 4% in sales. Net earnings were $1.4 million on sales of $329.3 million as compared with profits of $4.6 million on sales of $343 million in the same nine months of 1960. Leon Lowenstein, chairman of the board, noted that the company's unfilled order position is in much better shape than it was at the end of the second quarter.

BROWNWOOD, TEX.—Rock River Woolen Mills has purchased Tex-Ranch Woolen Mills here in an expansion move designed to permit the company greater versatility and economy in its fabric program. Tex-Ranch has specialized in all-wool clothes which have been distributed to several apparel trades, but at the time of the purchase was emphasizing shirtings. The mill is to be diversified to produce flannels, sports coatings and suitings. New looms and new dyeing equipment will be added.

ALBANY, GA.—Coats & Clark Inc. has started a new 50,000 square-foot addition to its plant here. The plant recently started the manufacture of a new spiral zipper that has taken up a large section of space formerly used as a warehouse. Forty new employees have been added since the plant began the manufacture of these zippers in July. The new addition is to be built on space now occupied by a 120-foot, 75,000-gallon water tank that is to be moved to the back of the plant property.

DURHAM, N. C.—Abney Mills of Greenwood, S. C., has announced plans to sell its 40% interest in Erwin Mills to settle an estate. Erwin operates three plants here, two at Erwin, N. C., one at Cooleemee, N. C., and another at Stonewall, Miss. Combined spindlage for the eight plants is 242,744 spindles. Erwin also operates a total of 5,310 looms to produce work, sports and home furnishing fabrics. For the fiscal year ended September 30, the company's net sales increased 5.9% to a total of $67.7 million compared with $63.9 million during the 1960 fiscal year. Profits declined 8.1% to $1.9 million for 1961 as compared with earnings of $2.1 million during the previous fiscal year.

NEW YORK, N. Y.—Riegel Textile Corp. has reported a 36.2% drop in net profits and a 5.6% dip in sales for its fiscal year ended September 30. Sales for the year totaled $85.7 million as compared with $90.7 million last year. Earnings dropped from $2.4 million to $1.5 million.

BALTIMORE, MD.—Mt. Vernon Mills reports an operating loss of $23,794 in the third quarter ending September 30 on sales of $8.6 million as compared with a profit of $297,372 on sales of $8.8 million in the corresponding quarter of 1960. Nine months' earnings were reported at $220,587 on sales of $25.6 million against profits of $716,292 on sales of $28.8 million during the first nine months of 1960.

NEW YORK, N. Y.—Bigelow-Sanford reports third quarter 1961 earnings up 1.6% and sales up 14.4% over third quarter 1960. Profits for the quarter were $248,000 on sales of $18.3 million as compared with earnings of $244,000 on sales of $16 million for the same period in 1960. Nine months' earnings were off 8.9% at $1.2 million on a 9.1% increase in sales to $58.5 million. During the first nine months of 1960, earnings were $1.3 million on sales of $53.6 million. The company reports that prospects are for continued improvement during the fourth quarter.

Textile Industry Schedule

For additional data (reservation requirements, membership requirements, program details, etc.) on activities listed here, contact name(s) shown in parentheses.

1962

Jan. 6 (Sa)—Winter meeting, Board of Governors, Southern Textile Association, City Club, Charlotte, N. C. (S.T.A., P. O. Box 1225, Charlotte 1, N. C.)

Jan. 11-12 (Th-F)—13th annual Cotton Research Clinic, The Carolina Hotel, Pinehurst, N. C. (National Cotton Council, Ring Bldg., Room 502, 1200-18th St., N.W., Washington 6, D. C.)

Jan. 22-25 (M-Th)—National Plant Engineering & Maintenance Show, Convention Hall, Philadelpia, Pa. (Clapp & Poliak Inc., 341 Madison Ave., New York 17, N. Y.)

Feb. 15-16 (Th-F)—Annual conference, Textile and Needle Trades Division, American Society for Quality Control, Clemson House, Clemson, S. C. (General Chairman: W. S. McMann, Dan River Mills, Danville, Va.)

Mar. 22-23 (Th-F)—Spring meeting, Textile Quality Control Association, Jack Tar Poinsett Hotel, Greenville, S. C. (Sec.: Werner Pels, National Cotton Council, Room 502, Ring Bldg., 1200-18th St., N.W., Washington 6, D. C.)

Mar. 29-31 (Th-Sa)—Annual meeting, American Cotton Manufacturers Institute, Palm Beach Biltmore Hotel, Palm Beach, Fla. (A.C.M.I., 1501 Johnston Bldg., Charlotte 2, N. C.)

Apr. 11-13 (W-Th)—Spring meeting, Textile Engineering Division, American Society of Mechanical Engineers, together with **The Fiber Society, Raleigh, N. C.** (Chairman: Elliot B. Grover, School of Textiles, North Carolina State College, Raleigh.)

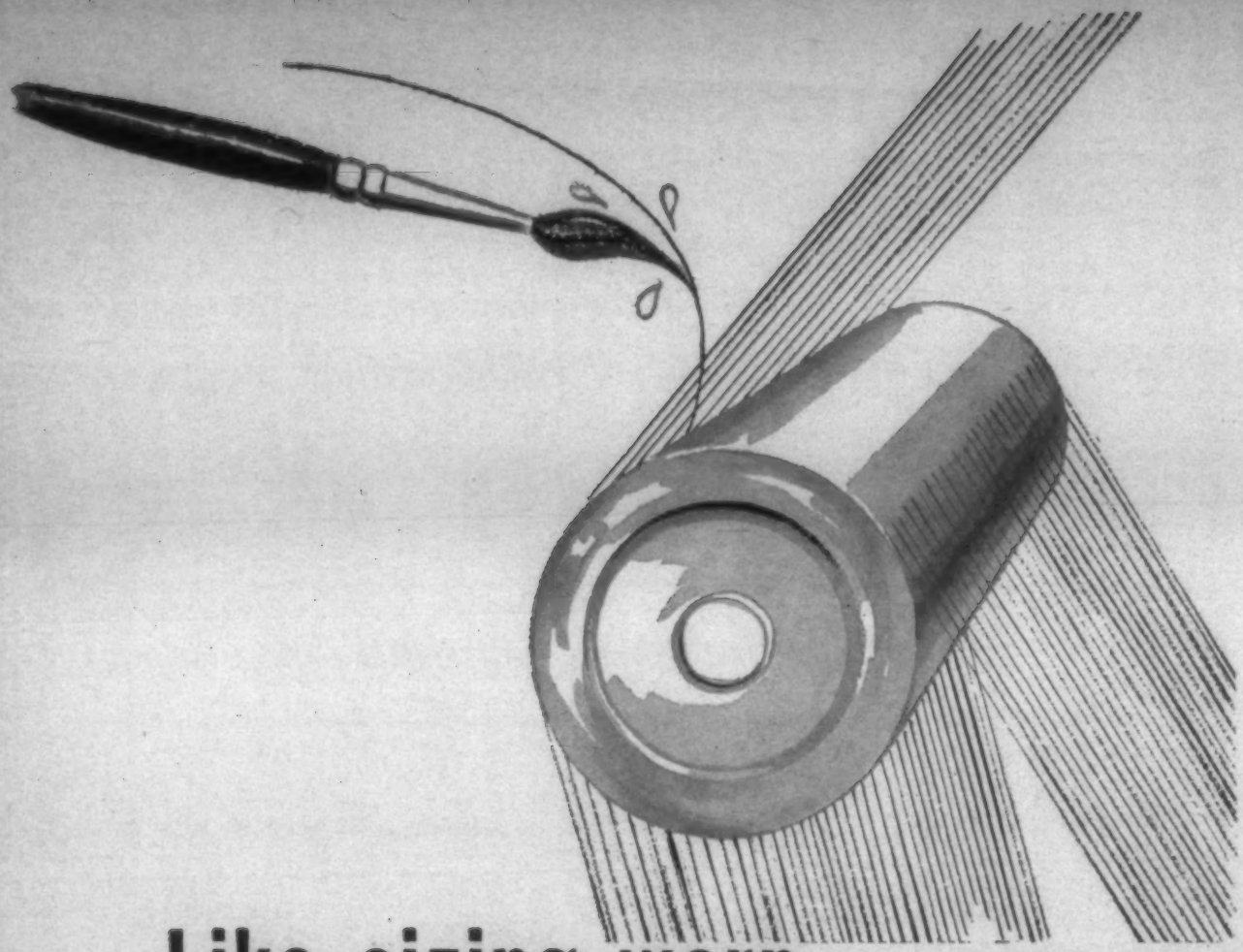
Apr. 17-18 (Tu-W)—Spring meetings, Technical Advisory Committee and Board of Trustees, Institute of Textile Technology, Charlottesville, Va. (L. H. Hance, I.T.T., Charlottesville, Va.)

Apr. 28 (Sa)—Spring meeting, Northern North Carolina-Virginia Division, Southern Textile Association, Morehead High School, Leaksville, N. C. (Chairman: A. L. Joslin, Dan River Mills, Danville, Va.)

May 2-5 (Tu-F)—Annual outing, Carolina Yarn Association, Pinehurst, N. C. (Exec. Sec.: Frank P. Barrie, P. O. Box 11411, Charlotte, N. C.)

May 23-25 (W-F)—Thirty-second annual North Carolina Statewide Industrial Safety Conference, Battery Park Hotel, Asheville, N. C. (H. S. Baucom, Director of Safety, North Carolina Industrial Commission, Education Building, Raleigh, N. C.)

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday; (Su) Sunday



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textile bulletin

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TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving phases of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are theirs and not necessarily those of the editors and publishers. ¶ Circulation rates are: one year payable in advance, $1.50; two years payable in advance, $2.00;

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No End In Sight For King Cotton's Troubles

A well-struck blow at the Agriculture Department's indefensible two-price system for cotton was the speech delivered October 26 by James E. Robison, president of Indian Head Mills, before the Textile Salesmen's Association of New York. (See "Two-Price System: King Cotton's Ransom," page 39.)

In his commendably documented blast, Mr. Robison submits that in his opinion support prices, not imports, are the textile industry's No. 1 problem. It is also the least likely to be solved, inasmuch as the very magnitude of it invariably overwhelms those who tackle it.

Right now, according to Agriculture Secretary Freeman, the Kennedy Administration is grappling furiously with it, having concluded not illogically that the present cotton plan—in fact the overall farm program—is proving much too costly for the taxpayer.

The Administration expects to have the new plan ready for presentation early in '62. Like its predecessors, it is expected to include remedies for not only the mills but also the farmer, the merchant and exporter. And again like its predecessors, it is expected to fall woefully short of this mark.

A substantial reason for this lack of optimism is, of course, the record past administrations have compiled in their attempts to produce a panacea for cotton's ailments. Each succeeding administration for years has been probing for the answer. The previous administration introduced the "A" and "B" plans, described in some quarters as the biggest of all backward steps. Nothing could have been worse, they thought—until this year's sharp increase in support prices and subsequent increase in acreage.

Apparently only three groups are happy with the current program—the small farmer, the synthetic fiber producer and the foreign cotton buyer. The small farmer, of course, is the one who votes for controls year in and year out. Three-fourths of the cotton farmers in this country are "small farmers," producing 15 bales or less. The bulk of the crop is produced by the remaining 15-25%. A really workable program would call for dropping all variously formulated controls, thereby eliminating the marginal producers and thus permitting the larger operators to produce the entire crop more efficiently and at a lower cost.

This won't happen as long as the smaller farmer "controls the controls." And for as long as he does hold this control, or to put it another way, as long as this control is left with him, nobody but nobody is going to resolve the problem.

As flickering as the hope is for a sound overall program for cotton, there is even less chance for still another project—doing away with classification by grade and staple standards only. Here's a problem that grows more acute every year. And it's a problem that will magnify as mill techniques make greater and greater strides.

Mill men have been pressuring for a more realistic method of grading for years. Yet if they've made any progress it isn't showing. In the meantime increased mechanization of production, harvesting and ginning are robbing cotton of some of its good qualities and giving it added poor ones.

Nobody expects the grower to give the spinner quality at the expense of grade. The difference between one full grade under the present support program can mean the difference between a good and bad year for the farmer. Obviously to overcome this stalemate a new system would have to be adopted.

While these problems persist, cotton can be expected to lose still further ground in its competition with man-made fibers.

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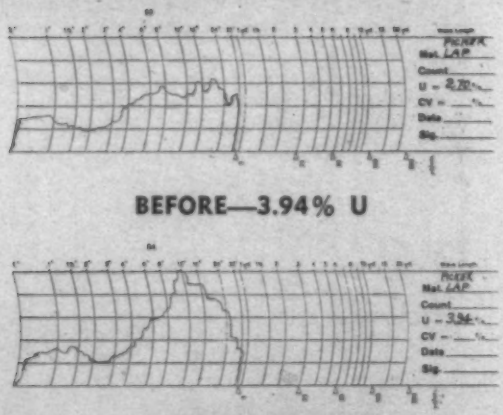

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